

INDEX

- ABBE (Prof. Cleveland), the Aims and Methods of Meteorological Work, especially as conducted by National and State Weather Services, 448
Abbot (C. G.), the Wastefulness of Artificial Lights, 546; a Compound Prism of Uniform Dispersion, 597
Abegg (Prof.), Use of Violuric Acid in Calorimetric Investigations, 402
Abelous (E.), Transformation of Nitrobenzene into Aniline by Horse-kidney Ferment, 407
Abelous (J.), Co-existence of Reducing and Oxidising Diastase in Animal Organs, 192.
Abney (Sir W. de W.), Monochromatic Vision, 433
Abraham (M.), Researches on Kerr's Phenomenon, 112
Abraham (H.), Time of Establishing Electric Spark, 360; Instantaneous Disappearance of Rotatory Polarisation, 435
Acoustics: Note on Distances to which Explosions are Felt and Heard, Dr. Charles Davison, 91; Barisal Guns, Henry S. Schurr, 127; Barisal Guns and Earthquakes, Prof. A. Issel, 60; Highest Audible and Inaudible Notes, R. König, 190; Mechanism of Hearing, Firmin Larroque, 311; Earthquake Sounds, Dr. C. Davison, 329; Movements of Expired Air during Formation of Speed Sounds, E. Gellé, 384; Photographs of Sound Waves, Prof. R. W. Wood, 433; New Method of Measuring Acuteness of Hearing for Intensity of Sound, E. Toulouse and N. Vaschide, 430; an Interesting Case of Resonance, Kenneth McMurtrie, 445; the Acoustic Analysis of the Vowels from the Phonographic Record, Prof. Louis Bevier, 467; Syntony, P. E. Shaw, 529; Electrical Micrometer, P. E. Shaw, 529
Addenbrooke (Mr.), Model illustrating Flow-actions of Electric Current, 23
Adie (R. H.), Reaction between Sulphuric Acid and Potassium Ferrocyanide, 190; Sulphate of Bismuth, 190; Volumetric Estimation of Potassium, 405
Adrian (M.), Colouring Matter of Digitalis, 144
Aération, Milk-preservation by, Dr. F. H. Bowman, 507
Aerolites, H. L. Ward, 190; W. M. Foote, 190
Aeronautics: Death and Obituary Notice of H. T. Coxwell, 257; Danilewsky's Divisible Balloon, 372; Recent International Balloon Ascents, Dr. H. Hergesell, 572; Recent Exploration in Upper Air and its bearing on Theory of Cyclones, H. H. Clayton, 611; Aeronaut Poisoned by Hydrogen Arsenide, 618
Afalo (F. G.), Types of British Animals, 77; the Necessity for Legislative Regulation of Sea Angling, 235
Africa: the Situation of Ophir, Dr. Carl Peters, 203; the African Horse Sickness, Dr. R. Wallace, 235; the Orange River Ground Moraine near Prieska, Messrs. Rogers and Schwarz, 240; Mineral Wealth of Zoutpansberg, D. S. S. Steuart, 281; Journals and Papers of Chauncy Maples, D. D., late Bishop of Likoma, Lake Nyasa, 294; In Dwarf Land and Cannibal Country, a Record of Travel and Discovery in Central Africa, A. B. Lloyd, 314; Geology of Mount Kenya, Dr. J. W. Gregory, 382; Elæolite-syenite and Fourchites of British South African Coast, Dr. J. W. Gregory, 382; Soils of South-west Cape Colony, C. F. Juritz, 436; a Flesiosaurian from Uitenhage, Cape Colony, Mr. Schwarz, 544; Remarkable Hillstorm in Cape Colony, O. D. Deacon, 594; Mammals of Mount Kenya, O. Thomas, 458; the Fauna of South Africa. Birds, A. C. Stark, 516; the Birds of Africa, comprising all the species which occur in the Ethiopian Region, G. F. Shelley, 516; Flint Implements from Nile Valley, 597; the Protection of Wild Animals, 616
Agamennone (Dr. G.), Balikesri Earthquake of September 14, 1896, 500
Agassiz (Prof. Alexander), Results of Recent Soundings in the Pacific, 211; the Pacific Corals, 432; Trawling in Pacific, 529
Agriculture: the Utility of the Sulphate of Ammonia in Agriculture, James Muir, 101; Progress of Agricultural Chemistry, Prof. Maercker, 116; the Wheat Problem, Sir William Crookes, F.R.S.; Sir R. Giffen, K.C.B., F.R.S., 169; Death and Obituary Notice of Dr. J. F. Hodges, 184; Scientific Weather Prediction for Agricultural Purposes, Dr. van Webber, 185; the "Wilt" Disease of Cotton, &c., E. F. Smith, 186; the Eradication by Spraying of Charlock and Runch, J. R. Campbell, 186; Eradication of Charlock by Spraying, Prof. W. Somerville, 619; the Use of Sulphate of Copper, Dr. J. A. Voelcker, 281; Agricultural Education, 332; the West Indian Agricultural Conference, Prof. J. P. d'Albuquerque, 392; Rice Culture in U.S.A., Dr. S. A. Knapp, 401; Nitragin and the Nodules of Leguminous Plants, Maria Dawson, 405; Soils of South-west Cape Colony, C. F. Juritz 436; Death and Obituary Notice of L. J. McCormick, 476; the Bacteriology of the Soil, Thos. T. Watson, 515; Nitragin ineffective in increasing Clover Crop, 519; the Work of the Research Association, 519; the Price of Wheat at Haddington, 1627-1897, R. C. Mossmann, 519; Australian Experimental Farms, 528; the Locust Plague in New South Wales, W. W. Froggart, 620
Agrumi, Gli, Prof. Antonio Aloj, 294
Ahrens (C. D.), Large Nicol Prisms, 31
Aitken (John, F.R.S.), Atmospheric Electricity, 514; Dynamics of Cyclones, 531
Air, the Resistance of the, Prof. G. H. Bryan, F.R.S., 107, 248
Air, Liquid, as Anæsthetic, Dr. A. C. White, 258; the Distillation of Liquid Air, E. C. C. Baly, 457; Its Uses for Researches at Low Temperatures, Prof. Ramsay, 458
Air Movement at Simla and in the Western Himalayas, 380
Alaska and the Klondike, Angelo Heilprin, 122
Albrecht (Prof. Th.), Variation of Latitude, 574
Albuquerque (Prof. J. P. d'), the West Indian Agricultural Conference, 392
Alby (M.), on the Construction and Erection of the Alexander III. Bridge over the Seine in Paris, 21
Alcock (A.), an Account of the Deep-sea Brachyura, being Systematic Reports upon the Materials collected by the Royal Indian Marine Survey Ship *Investigator*, 291
Alcoholism, Acute, N. Gréhan, 95
Ale, Birch, Dr. W. C. MacLagan, 286
Alemberg (D'), Abhandlung der Dynamik, 390
Alexandria, Hero of, W. Schmidt, 202
Algebra, Elementary, C. H. French and G. Osborn, 200
Algeria, Petroleum in, M. Neuburgher, 618
Algol Type, Variable Stars of the, H. C. Wilson, 521
Algol Variable, Light Curve of Cerasiki's First, 355
Algol Variable in Cygnus, New, 17
Algol Variable in Cygnus, Cerasiki's Second New, 355; Prof. E. C. Pickering, 454
Alkali Industry, Impending Changes in the General Development of Industry, and particularly in the, Prof. G. Lunge, 92
Allbutt (Prof. T. C., F.R.S.), a System of Medicine by many Writers; Edited by, 584
Allen (E. J.), the Stockholm Fisheries Conference, 54, 227; Report of the Marine Biologist for the Year 1898; Cape of Good Hope Department of Agriculture, 562

- Allen (Grant), Death and Obituary Notice of, 13
 Alloys, Gold Aluminium, C. T. Heycock, F.R.S., and F. H. Neville, F.R.S., 357
 Almanac, Nautical, Day Numbers of, 208
 Aloj (Prof. Antonio), Gli Agrumi, 294
 Aluminium Electric Cable, an, 399
 Ambrogn (Dr. L.), Handbuch der Astronomischen Instrumentenkunde, 241
 Ameghino (Señor), Arrhinolemur, 372
 America : American Journal of Mathematics, 46, 457 ; American Journal of Science, 93, 190, 310, 432, 528, 626 ; Bulletin of American Mathematical Society, 93, 213, 404, 554, 577 ; Transactions of, 504 ; Marriages of the Deaf in America, Edward Allen Fay, Dr. Macleod Gearsley, 97 ; the North American Slime Moulds, Prof. T. H. MacBride, 173 ; Antiquity of Man in America, the Evidence as to Auriferous Gravel Man in California, W. H. Holmes, 206 ; Astronomical and Astrophysical Society of America, 208 ; a Glimpse at Guatemala, and some Notes on the Ancient Monuments of Central America, Anne Carey Maudslay and Alfred Percival Maudslay, A. H. Keane, 292 ; American Higher Technical Education, Prof. F. W. Burstall, 299 ; the Birds of Eastern North America—Water Birds, C. B. Cory, 323 ; the Fishes of North and Middle America : a Descriptive Catalogue of the Species of Fish-like Vertebrates found in the Waters of North America, North of the Isthmus of Panama, David Starr Jordan and Barton Warren Evermann, 362 ; Fifteen Years' Sport and Life in the Hunting-grounds of Western America and British Columbia, W. A. Baillie-Grohman, 566 ; the Development of Astronomy in America, 574 ; North American Geology, 600
 Amphioxus, Notes on the Occurrence of, at Singapore, F. P. Bedford, 444
 Amsterdam Royal Academy of Sciences, 71, 167, 216, 407, 460, 580
 Anaesthetic, Liquid Air as, Dr. A. C. White, 258
 Anales del Museo Nacional de Buenos Aires, 46, 372
 Anatomy ; Death of Émile Blanchard, 370
 Anderlini (F.), New Lines in Infra-red Spectrum of Argon, 235
 Anderson (Dr. T. D.), New Variable Star in Draco, 374 ; New Variable in Andromeda, 547 ; New Variables in Taurus and Cassiopeia, 621
 Andrews (C. W.), on the relation of Christmas Island to the Neighbouring Lands, 19 ; the Land Fauna of Christmas Island, 458
 Andrews (Thos., F.R.S.), Internal Stresses in Iron and Steel, 541 ; Wear of Steel Rails in Tunnels, 595
 Andromeda, New Variable in, Dr. T. D. Anderson, 547
 Andromedes, the, 61
 Angling, Sea, the Necessity for Legislative Regulation of, F. G. Afalo, 235
 Animal and Vegetable Organisms, the Growth of, Charles Benedict Davenport, 218
 Animals of Britain and their Origin, Dr. R. F. Scharff, 341
 Animals, Experiments on, Stephen Paget, 512
 Animals, Types of British, F. G. Afalo, 77
 Anlage and Rudiment, Prof. J. Mark Baldwin, 29
 Annalen der Physik : see Wiedemann's Annalen
 Antarctica : Account of the Cruise of Sir George Newnes' Yacht, *Southern Cross*, from Hobart to Cape Adare, Dr. H. R. Mill, 18 ; Account of the Voyage and Wintering of the Belgian Expedition in the Antarctic Ice-pack South-west of Cape Horn, H. Arctowski, 18 ; Further Work required in Antarctic Exploration, and Method of conducting it, M. Arctowski, 18 ; Physical and Chemical Work required for an Antarctic Expedition, J. Y. Buchanan, F.R.S., 18 ; Prof. Rücker, Major Darwin, Mr. George Murray, Dr. Koettlitz on Antarctic Exploration, 10 ; Dr. Gerhard Schott on the chief results of the Voyage of the *Valdivia*, 19 ; the Possibilities of Antarctic Exploration, Dr. F. A. Cook, 136 ; Geographical Results of Belgian Antarctic Expedition, Dr. F. A. Cook, 258 ; German Antarctic Expedition, Prof. Erich von Drygalski, 318 ; Tides along the Antarctic Continent, R. A. Harris, 490 ; Return of Borchgrevink's Antarctic Expedition, 544
 Anthrax, Serotherapy of, S. Arloing, 459
 Anthropology, Aboriginal Stonework in Porto Rico, Dr. O. T. Mason, 40 ; Eaglehawk and Crow : a Study of the Australian Aborigines, including an Inquiry into their Origin and a Survey of Australian Languages, John Mathew, Prof. Alfred C. Haddon, F.R.S., 193 ; the Evidence as to Auriferous Gravel Man in California, W. H. Holmes, 206 ; Primitive Mathematics, L. Frobenius, 259 ; Prof. W. J. McGee, 259 ; Science and Faith, or Man as an Animal and Man as a Member of Society, with a Discussion of Animal Societies, Dr. Paul Topinard, 270 ; Journals and Papers of Chauncy Maples, D.D., late Bishop of Likoma, Lake Nyasa, 294 ; In Dwarf Land and Cannibal Country, a Record of Travel and Discovery in Central Africa, A. B. Lloyd, 314 ; Anthropological Institute, 434, 530, 578 ; the Races of Man : an Outline of Anthropology and Ethnography, J. Deniker, Prof. A. C. Haddon, F.R.S., 462 ; Stone Circles in Scotland, A. L. Lewis, 530 ; Ethnography of Solomon Islands, R. Parkinson, 546 ; Native Life and Customs in Sarawak, Prof. A. C. Haddon, 578 ; C. Hose, 578 ; see also British Association, Section H
 Anti-plague Inoculations, 550
 Antiquities of Central America, Anne Carey Maudslay and Alfred Percival Maudslay, A. H. Keane, 292
 Antiquity of Man in America : the Evidence as to Auriferous Gravel Man in California, W. H. Holmes, 206
 Antivenene, Snake-bite Cured by Calmette's, Major S. J. Rennie, 85
 Ants : can they hear ? Mr. Weld, 157
 Appell (M.), Equilibrium of Vessel carrying Liquid, 24
 Appleyard (Mr.), Fault-test for Electric Cable cores, 334
 Archaeology : the Reliquary and Illustrated Archaeologist, 6 ; Flint Implements, &c., from Egypt, Prof. Flinders Petrie, 95 ; Flint Implements from Nile Valley, 597 ; a Catalogue of the Cyprus Museum, with a Chronicle of Excavations undertaken since the British Occupation, and Introductory Notes on Cypriote Archaeology, John L. Myres and Max Ohnefalsch-Richter, 195 ; Pigmy Flints in Yorkshire, R. A. Gatty, 282 ; a Glimpse at Guatemala and some Notes on the Ancient Monuments of Central America, Anne Carey Maudslay and Alfred Percival Maudslay, A. H. Keane, 292
 Arctic : Account of the Trial Trip of the great Russian Ice-breaker, *Yermak*, Admiral Makarov, 17 ; Arctic Exploration, Walter Wellman, 17 ; the Scientific Results of the Polar Expedition, Dr. F. Nansen, 62 ; Mollusca of Kolguev and Franz Josef Land, J. C. Melville and R. Standen, 143 ; Present State of Polar Ice, 422
 Arctowski (M.), Account of the Voyage and Wintering of the Belgian Expedition in the Antarctic Ice-pack South-west of Cape Horn, 18 ; Further Work Required in Antarctic Exploration and Method of Conducting it, 18
 Arey (Albert E.), Elementary Chemistry for High Schools and Academies, 442
 Argyll (Duke of), Death of, 616
 Arithmetical Exercises in Chemistry, Leonard Dobbin, 53
 Arithmétique, Exercises d', J. FitzPatrick et G. Chevrel, 314
 Arloing (S.), Serotherapy of Anthrax, 459
 Armour Plates, R. A. Hadfield, 301
 Arnaud (A.), New Method for Extraction from *Lamolophia* Bark of Rubber, 360
 Arsenic in Animals, Armand Gautier, 166-7, 383
 Arsonval (M. d'), Apparatus for Decorating Front of Electricity Section of Paris Exhibition, 628
 Art Enamelling upon Metals, Theory and Practice of, Henry Cunynghame, 466
 Asia, Innermost, Ralph P. Cobbold, 495
 Astr. (Ch.), New Compound of Antipyrin with Mercuric Chloride, 556
 Astronomy : on the Distribution of the various Chemical Groups of Stars, Sir Norman Lockyer, K.C.B., F.R.S., 8 ; Our Astronomical Column, 17, 41, 61, 87, 114, 137, 157, 187, 207, 236, 260, 283, 306, 330, 355, 374, 402, 424, 453, 479, 501, 521, 547, 574, 597, 621 ; Astronomical Occurrences in November, 17 ; in December, 137 ; in January 1900, 207 ; in February, 330 ; in March, 424 ; in April, 521 ; in May, 621 ; Holmes' Comet (1899d), 17, 41, 62, 87, 114, 137 ; Holmes' Comet (1899 II.), 236 ; Comet Giacobini (1899e), 17, 41, 87, 114, 137 ; M. Perrotin, 47 ; Comet Giacobini (1900a), 355, 402, 424 ; New Variable Star, 17 ; New Algol Variable in Cygnus, 17 ; Light Curve of Ceraski's First Algol Variable, 355 ; Second New Algol Variable in Cygnus, Madame Ceraski, 355 ; Prof. E. C. Pickering, 454 ; New Variable in Cygnus, 501 ; Elliptic Elements of the Variable Y Cygni, 501 ; Spectrum of P. Cygni, Herr A. Belopolsky, 137 ; Variable Stars of the Algol Type, H. P. Wilson, 521 ; Next Week's Leonid Shower, Dr. G. Johnstone Stoney, F.R.S., Dr. A. M. W. Downing, F.R.S.,

- 28 ; the Leonids, 41, 374 ; W. F. Denning, 81 ; Dr. G. Johnstone Stoney, F.R.S., 82 ; the November Meteors, Dr. W. J. S. Lockyer, 132 ; Supposed Daylight Leonids, W. F. Denning, 152 ; Observations of the Leonids, M. Loewy, 119 ; M. J. Janssen, 119 ; J. Guillaume, 143 ; C. H. Trepied, 143 ; Harold Tarry, 143 ; S. de Glasenapp, 359 ; Leonid Meteor Showers, Thos. W. Kingsmill, 491 ; Contemporary Meteor-showers of the Leonid and Bielid Meteor-periods, Prof. A. S. Herschel, F.R.S., 222, 271 ; Long Focus Photographic Telescope, 41 ; Secular Variations of Venus, Prof. Eric Doolittle, 41 ; the Andromedes, 61 ; Occultation of Neptune, 62, 158, 453 ; Determination of Axis and Compression of Neptune, Prof. S. J. Brown, 621 ; the Heavens at a Glance, Arthur Mee, 62 ; the Meteors of Biela's Comet, E. C. Willis, 78 ; W. F. Denning, 78 ; Refraction Effect of Comet Swift (1899 I.), Prof. C. D. Perrine, 87 ; Predominance of Spiral Nebulae, Prof. J. E. Keeler, 87 ; Bulletin Astronomique, 87 ; Position of Perth Observatory, W. E. Cooke, 114 ; Spectroscopic Binaries, a Aurige, Prof. W. W. Campbell, 114 ; a Ursae Minoris, Prof. W. W. Campbell, Prof. E. B. Frost, 114 ; Variations in the Spectrum of Orion Nebula, Prof. Scheiner, 114 ; Mercury and Jupiter as Morning Stars, 137 ; Mercury as a Naked Eye Object, W. F. Denning, 431 ; Photometric Observations of Mercury during Solar Eclipses, Dr. G. Müller, 574 ; Death and Obituary Notice of N. E. Green, 156 ; the Great Paris Telescope, Sir Norman Lockyer, K.C.B., F.R.S., 178 ; New Minor Planet (1899 E.Z.), 187 ; Change in Publication of the *Astronomische Nachrichten*, 187 ; Companion to the Observatory, 187 ; the Solar Parallax, Bouquet de la Grye, 192, 236 ; Orbit of Fifth Satellite of Jupiter, Prof. E. E. Barnard, 157 ; Partial Eclipse of the Moon, December 16, 158 ; Meridian of Universal Time, 158 ; the Wind during Eclipses of the Sun, John W. Evans, 200 ; A. L. Rotch, 589 ; the approaching Total Eclipse of the Sun, 201 ; the Eclipse Expedition at Vizieradug, Sir Norman Lockyer, K.C.B., F.R.S., 229, 249 ; Solar Eclipses in the 20th Century, M. Camille Flammarion, 548 ; Astronomical and Astrophysical Society of America, 208 ; Day Numbers of Nautical Almanac, 208 ; Popular Astronomy for December, 208 ; the Piscian Stars, Sir Norman Lockyer, F.R.S., 213 ; Earth-shine, 235 ; Orbit of Eros, 236 ; Handbuch der Astronomischen Instrumentenkunde, Dr. L. Ambronn, 241 ; Central Star of Ring Nebula in Lyra, W. Strattonoff, 260 ; New Minor Planet (1899 E.Y.), 283, 402 ; Herr Otto Knopf, 283 ; the Anomaly in movement of Jupiter's Fifth Satellite, O. Callandreau, 287 ; Observations of, 287 ; Observations of the Diameter and Flattening of Jupiter, G. Bigourdan, 287 ; Star-land, Sir Robert S. Ball, F.R.S., 294 ; Density of Close Double Stars, 306 ; a New Photographic Photometer, Dr. J. Hartmann, 306 ; New System of Spectrum Photometry, Prof. D. B. Brace, 521 ; a Brilliant Meteor in Sunshine, 306 ; Reduction of Star Photographs, A. R. Hinks, 355 ; the Computation of Occultations, 355 ; Blaikie's Cosmopshere, 359 ; Die Photographie der Gestirne, Dr. J. Scheiner, 363 ; Definitive of Orbit of Comet (1897 III.), Herr E. Wessell, 374 ; New Variable Star in Draco, Dr. T. D. Anderson, 374 ; Time used in Ephemerides, 374 ; Study of Latitude-variations, Jean Boccardi, 383 ; Harvard College Observatory, 402 ; Interference Method of Measuring Small Diameters, M. Maurice Hamy, 402 ; Rapid Variations of Radial Velocity of 8 Orion, H. Deslandres, 407 ; Meteor Photography, 424 ; a Possible Cause of the Variability of Stars, Dr. G. Johnstone Stoney, F.R.S., 443 ; the Structure of the Inner Corona, Prof. S. P. Langley, For. M.R.S., 443 ; the Relation between the Periodic Changes of Solar Activity and the Earth's Motion, Dr. J. Halm, 445 ; Death of Dr. C. S. R. Luther, 449 ; Obituary Notice of, 473 ; Death and Obituary Notice of Emmanuel Liais, 450 ; Law of Diurnal Rotation of Optical Field of Siderostat and Heliostat, A. Cornu, 459 ; Death and Obituary Notice of Dr. G. Rümker, 473 ; Death and Obituary Notice of L. J. McCormick, 476 ; Search for an Intra-mercurial Planet, Prof. W. H. Pickering, 479 ; the New Twin Refractor at Potsdam, 479 ; the Benjamin Althorp Gould Fund, 479 ; Escape of Gases from Planetary Atmospheres, S. R. Cook, 501 ; Dr. G. Johnstone Stoney, F.R.S., 515 ; New Mode of using the Concave Diffraction Grating, Dr. G. B. Rizzo, 501, 541 ; Comet (1899 V.), 501, 521 ; Computation of Orbits of Spectroscopic Doubles, Dr. K. Schwarzschild, 521 ; Photographs of Stars, Star Clusters and Nebulae, together with Records of Results obtained in the pursuit of Celestial Photography, Dr. Isaac Roberts, F.R.S., Dr. William J. S. Lockyer, 533 ; Planets at their Greatest Brilliance, C. T. Whitmell, 540 ; Death of Catherine Wolfe Bruce, 544 ; New Variable in Andromeda, Dr. T. D. Anderson, 547 ; a Brilliant Fireball, Mr. Crommelin, 548 ; Opposition of Minor Planet (434) Hungaria, 543 ; the New Odessa Observatory, 544 ; the Development of Astronomy in America, 574 ; Rotation Period of Venus, 574 ; Variation of Latitude, Prof. Th. Albrecht, 574 ; Planetary Work at the Manora Observatory, 574 ; Bulletin de la Société Astronomique de France, 577 ; a Compound Prism of Uniform Dispersion, C. G. Abbott and F. E. Fowle, 597 ; Dynamical Criticism of Nebular Hypothesis, F. R. Moulton, 597 ; Cape Star Catalogue for 1890, Dr. Gill, 597 ; Photographs of Aurora Spectrum, M. Paulsen, 621 ; New Variables in Taurus and Cassiopeia, Dr. Anderson, 621 ; Formula for Atmospheric Refraction, L. Cruls, 621
- Astruc (A.), Alkalimetry of Amines, 192
- Atkinson (G. A. S.), Vapour-density of Bromine at High Temperatures, 285
- Atkinson (Canon J. C.), Death and Obituary Notice of, 544
- Atlantic Deep-sea Soundings, R. E. Peake and Sir John Murray, 286
- Atlas of Meteorology, J. G. Bartholomew and A. J. Herbertson, 171
- Atmospheric Electricity, J. Elster and H. Geitel, 422 ; John Aitken, F.R.S., 514
- Atmospheric Electricity and Disease, Dr. Schliep, Prof. John Perry, F.R.S., 471
- Atomic Theories : Essai critique sur l'Hypothèse des Atomes dans la Science Contemporaine, Arthur Hannequin, 26
- Atoms, the Story of the Wanderings of, especially those of Carbon, M. M. Pattison Muir, 126
- Atwater (Prof. W. O.), Law of Conservation of Energy in Human Organism, 258
- Auriferous Gravel Man in California, the Evidence as to, W. H. Holmes, 206
- Aurige, Spectroscopic Binary Stars, Prof. W. W. Campbell, 114
- Auroch's Horn found in Pomerania, 135 ; Dr. Nehring, 400
- Aurora Borealis, Photographs of Spectrum, M. Paulsen, 621
- Austin (Martha), Constitution of Ammonium-magnesium Arsenite of Analysis, 310
- Australia : On the Date of the Discovery of, E. Heawood, 20 ; the Naval Pioneers of Australia, Louis Becke, Walter Jeffery, 53 ; Eaglehawk and Crow : a Study of the Australian Aborigines, including an Inquiry into their Origin and a Survey of Australian Languages, John Mathew, Prof. Alfred C. Haddon, F.R.S., 193 ; Geology of Western Australia, A. G. Maitland and T. Blatchford, 259 ; Memoirs of Royal Society of South Australia, Dr. E. C. Stirling, F.R.S., and A. H. C. Zietz, 275 ; the Melbourne Meeting of the Australasian Association, 494 ; Australian Experimental Farms, 528 ; Marine Zoology in Australia, Prof. W. A. Herdman, F.R.S., 590
- Avigliana Dynamite Explosions, Effect of, Dr. M. Baratta, 451
- Ayrton (Prof.), Use of Price's Guard Wire in Insulator Tests, 334
- Babylonian Religion and Mythology, L. W. King, Frank Rede Fowke, 437
- Bacei (Dr. P.), Wehnelt's Interrupter, 328
- Bachhold (Dr.), Bacteria and Sewage Disposal, 63
- Bachi da Seta, i., Prof. Tito Nenci, 77
- Bacteriology : Bacteria and Sewage Disposal, Dr. Bachhold, 63 ; Prof. Potter on a Bacterial Disease—White Rot—of the Turnip, 66 ; Death of Dr. Camara Pestana, 84 ; the Rate of Multiplication of Yeast Cells, Dr. H. P. Hoyer, 113 ; Yeast-increase without Fermentation in Presence of Limited Quantity of Air, A. Rosenstiel, 336 ; Insects as Carriers of Disease, Dr. G. H. F. Nuttall, 153 ; Outlines of Bacteriology, Dr. L. H. Thoinot and E. J. Masselin, 221 ; the Bacillus of "Doubleface" Disease in Beer, M. van Laer, 287 ; Bacterial Origin of Scurvy, Prof. A. M. Lévin, 400 ; System der Bakterien, Dr. W. Migula, Dr. E. Klein, F.R.S., 464 ; New Bacteria in Coal, B. Renault, 508 ; the Bacteriology of the Soil, Thos. T. Watson, 515 ; Effect of Liquid Air on Bacteria, Dr. Allan Macfadyen, 529 ; Influence of Temperature of Liquid Air on Bacteria, Dr. Allan Macfadyen and S. Rowland, 603 ; New Pathogenic Microbe in Rabbit, C. Phisalix, 580

- Bahamas, the Feather-stars of the, Prof. Verrill, 16
 Bailey (Dr. L. W.), Mineralogy of New Brunswick, 16
 Baille-Grohman (W. A.), Fifteen Years' Sport and Life in the Hunting-grounds of Western America and British Columbia, 566
 Baker (H. B.), Vapour Densities of Dried Mercury and Mercurous Chloride, 530
 Baker (J. L.), Manno-galactan and Lævulo-mannan, 530
 Baker (R. T.), the Essential Oil of *Darwinia fascicularis*, 483
 Baker (T. J.), Frequency of Transverse Vibrations of Stretched India-rubber Cord, 334
 Baker (W. M.), Elementary Dynamics, 221
 Bakker (Dr. G.), the Molecular Potential Function, 156
 Baldwin (D.), Action of Acetylene on Metallic Oxides, 93
 Baldwin (Prof. J. Mark), Anlage and Rudiment, 29; the Royal Society Catalogue and Psychology, 226
 Balfour (Mr.) on Scientific Research, 395
 Ball (Sir Robert S., F.R.S.), Star-land, 294
 Ballistics: Vibrations of Gun Barrels, C. Cranz, K. R. Koch, 58; Resistance to Projectiles in Air, 93; Law of Aërial Resistance to Projectiles, Paul Vieille, 359
 Balloon Ascents, Recent International, Dr. H. Hergesell, 572
 Balloon, Danilewsky's Dirigible, 372
 Ballooning: Aeronaut poisoned by Hydrogen Gas, 618
 Balloons in War, 83
 Baly (E. C. C.), the Distillation of Liquid Air, 457
 Bamberger (Prof.), Mechanism of Passage of Hydroxylamines into Amidophenoles, 63; Pyrrol Aldehyde, 453
 Bancroft (Dr. W. D.), New Formula for Ostwald's Dilution Law, 303
 Baratta (Dr. M.), Effect of Avigliana Dynamite Explosions, 451
 Barber (Samuel), a Brilliant Meteor, 326
 Barbour (E. H.), Decline of Geyser Activity in Yellowstone Park, 398
 Bardier (E.), Concerning Physiological Alteration of Kidneys, 483
 Barents Sea, Natural History of the Shores of, H. J. Pearson, 348
 Barisal Guns, Henry S. Schurr, 127
 Barisal Guns and Earthquakes, Prof. A. Issel, 60
 Barnard (Prof. E. E.), Orbit of Fifth Satellite of Jupiter, 157
 Barrett (Prof.), Magnetic Properties of Aluminium, Nickel and Tungsten Steels, 23
 Barrett Hamilton (Mr.), Colour-phases of Weasel, 451
 Bartholomew (J. G.), Atlas of Meteorology, 171
 Bartlett's (A. D.), Life among Wild Beasts in the "Zoo," 267
 Barton (Dr. E.), Reflection and Transmission of Electric-waves along Wires, 334
 Barus (C.), Hot Water and Soft Glass, 528
 Bary (Paul), Fluorescence of Metallic Compounds under Röntgen and Becquerel Rays, 531
 Bather (F. A.), Deceptive Bibliographic Indications, 367
 Battelli (F.), Death by Electric Discharge, 24; Effects of Electric Discharges on Heart of Mammals, 239
 Baumhauer (Prof. H.), Darstellung der 32 Möglichen Krystallklassen, 245
 Baxandall (G. A.), Practical Plane and Solid Geometry, 101
 Beasts: Thumbnal Studies in Pets, Wardlaw Kennedy, 28
 Beaumont (Prof. R.), Szczepanik's Photographic Process of preparing Textile Designs, 14
 Beauregard (Dr. Henri), Obituary Notice of, 593
 Bebber (Dr. van), Scientific Weather Prediction for Agricultural Purposes, 185
 Becke (Louis), The Naval Pioneers of Australia, 53
 Becker (G. F.), Geology of South Alaskan Goldfields, 600
 Bequerel (H.), Phosphorescence Phenomena of Radium Radiation, 166; Influence of Magnetic Field on Radiation of Radio-active Bodies, 192; The Radiation of Radio-active Bodies, 239; Radium and Polonium Rays in Magnetic Field, 355; Radium and Polonium Rays, 371; The Radium Radiations, 359; Dispersion of Radium Rays in Magnetic Field, 407; Negative Charge communicated by Radium Rays, 498; Deviations of Radium Rays in Electric Field, 555; Origin of Energy of Bequerel Rays, 547
 Bequerel Rays: Suggested Source of the Energy of the, Dr. Fred T. Trouton, F.R.S., 443; The Absorption of the Bequerel Rays by Solid and Gaseous Bodies, Hon. R. J. Strutt, 539; Origin of Energy of Bequerel Rays, H. Bequerel, 547
 Beddard (F. E.), a Book on Whales, 585
 Bedford (F. P.), Notes on the Occurrence of *Amphioxus* at Singapore, 444
 Beecher (C. E.), *Uintacrinus* from Kansas, 626
 Beer, Heather, Dr. W. C. MacLagan, 286
 Beer, the Bacillus of "Double-face" Disease in, M. Van Laer, 287
 Beetles, Stridulating, Mr. Gahan, 406
 Beginselen der Scheikunde, Dr. M. C. Schuyten, 220
 Béhal (H. A.), Mixed Oxyhydrides of Fatty and Aromatic Acids, 48
 Behn (U.), Specific Heats of Metals at Low Temperatures, 554; Heat of Sublimation of Carbonic Acid and of Evaporation of Air, 554
 Belgian Antarctic Expedition, Geographical Results of, Dr. F. A. Cook, 258
 Bell (Sir I. L., F.R.S.), Development of Manufacture and Use of Rails in Great Britain, 595
 Belopolsky (Herr A.), Spectrum of P Cygni, 137
 Beltrami (Prof. E.), Death of, 449; Obituary Notice of, Prof. G. H. Bryan, F.R.S., 568
 Bemmelen (D. W. van), Spasms in Earth's Magnetic Force, 72
 Bénard (Henri), Movements produced in Liquids by Heat Connection, 604
 Bénéch (Elopho), Action of Phenyl Isocyanate and Isothiocyanate on Dibasic Acids, 580
 Benham (Prof. W. B.), the Takahé (*Notornis hochstetteri*), 576
 Bentley (Dr. I. M.), Relative Fidelity of Memory Image, 60
 Berger (A.), Microphonic Registration of Beat of Chronometer, 71
 Bergholz (Dr. Paul), Die Orkane des Fernen Ostens, 317
 Berlin Academy of Sciences, the Bi-Centenary of the, 469, 494
 Berlin Geographical Congress, Meteorology at the, A. Lawrence Rotch, 177; the Writer of the Report, 177
 Bernard (H. M.), the Structure of Porites, 213
 Bernthsen (Herr), the Formula of Hyposulphurous Acid, 354
 Berthelot (Daniel), Simultaneous Oxidation and Hydration under Free Oxygen and Light, 24; the Explosion of Potassium Chlorate, 166; General Method for Estimating some Elements in Organic Compounds, 192; Value of Internal Pressure in Equations of Van Waals and Clausius, 287; the Co-volume in Characteristic Equation of Fluids, 311; Association of Molecules in Liquids, 459; Heat of Combustion of some very Volatile Liquids, 627
 Bertrand (Joseph), Death of, 544; Obituary Notice of, Prof. G. H. Bryan, F.R.S., 614
 Bertrand (Marcel), Mechanical Theory of Mountain Formation, 383
 Bertrand (Prof.), on the Structure of a Stem of a Ribbed *Sigillaria*, 68
 Beudant (E. G. J. Hartley), 382
 Bevier (Prof. Louis), the Acoustic Analysis of the Vowels from the Phonographic Record, 467
 Beyerinck (Prof.), the Production of Indigo from Woad, 71
 Biblica, Encyclopaedia, Rev. T. K. Cheyne, 148
 Bibliographic Indications, Deceptive, F. A. Bather, 367
 Bi-Centenary of the Berlin Academy, 469, 494
 Biela's Comet, the Meteors of, E. C. Willis, 78; W. F. Denning, 78
 Bielid Meteor-periods, Contemporary Meteor-showers of the Leonid and, Prof. A. S. Herschel, F.R.S., 222, 271
 Biffen (R. H.), Account of *Bulgaria polymorpha* (Wettstein) as a Wood-destroying Fungus, 66; on India-Rubber, 68
 Bigelow (F. H.), Results of International Cloud Work for U.S.A., 190
 Bigourdan (G.), Observations of Diameter and Flattening of Jupiter, 287
 Billiards Mathematically Treated, G. W. Hemming, 410, 468; S. H. Burbury, F.R.S., 410
 Biographical Dictionary, Who's Who, 1900, an Annual, 270
 Biology: Anlage and Rudiment, Prof. J. Mark Baldwin, 29; Coccophores and Rhabdospheres, George Murray, F.R.S., 54; Statistical Methods: with Special Reference to Biological Variation, C. B. Davenport, 149; Experiments on Growth of Tadpoles' Tails, R. G. Harrison, 206; Molecular Structure of Organised Bodies, F. W. Jones, 273; L'Année Biologique, 313; Fixirung, Färbung, und Bau des Protoplasmas: Kritische untersuchungen über Technik und Theorie in der Neueren Zellforschung, Dr. Alfred Fischer, Prof. J. B. Farmer, 385; Life under other Conditions, Geoffrey Martin, 452; Death of Prof. St. George Mivart, 544; Obituary Notice of, 569; Certain Laws of Variation, Dr. H. M. Vernon, 577; Experimental Study of Fertilisation, Prof. Yves Delage, 551;

- Significance of Increased Size of Cerebrum in Recent as Compared with Extinct Mammalia, Prof. E. R. Lankester, F.R.S., 624; Marine Biology: the Stockholm Fisheries Conference, 34; E. J. Allen, 54, 227, 275; Prof. W. A. Herdman, F.R.S., 78, 177; Geo. Murray, F.R.S., 102; H. M. Kyle, 151; Prof. Otto Pettersson, 413; Liverpool Marine Biology Committee's Memoirs, I. *Ascidia*, Prof. W. A. Herdmann, F.R.S., 126; Some Recent Work of the Marine Biological Association, 79; a Great Salt Lake Problem, 204; Meduse of Millepora, S. G. Hickson, F.R.S., 213; the Structure of Porites, H. M. Bernard, 213; Biological Lectures from the Marine Biological Laboratory, Woods' Holl, Massachusetts, 1898, 244; Ancestry of Helioporidae, J. W. Gregory, 311; Trawling in Pacific, A. Agassiz, 529; the Blue Coral, Prof. J. W. Gregory, 555; Report of the Marine Biologist for the Year 1898, Cape of Good Hope Department of Agriculture, E. J. Allen, 562
- Birch Ale, Dr. W. C. MacLagan, 286
- Birch-Hirschfeld (Dr.), Death of, 134
- Birds: Birds Capturing Butterflies, F. Finn, 55; Oswald H. Latter, 56; Howard Fox, 152; George A. Soper, 194; a Hand-list of the Genera and Species of Birds, R. Bowdler Sharp, LL.D., 126; Our Rarer British Breeding Birds, their Nests, Eggs, and Summer Haunts, R. Kearton, 323; the Birds of Rhode Island, R. H. Howe, jun., and E. Sturtevant, 323; the Birds of Eastern North America: Water Birds, C. B. Cory, 323; the Fauna of South Africa: Birds, A. C. Stark, 516; the Birds of Africa, comprising all the Species which occur in the Ethiopian Region, G. F. Shelley, 516; the Birds of Celebes, A. B. Meyer and L. W. Wiglesworth, 605
- Bishop (Mrs. J. F.), the Yangtze Valley and Beyond, 252
- Blaikie's Cosmophere, 359
- Blaise (E. E.), Camphenylene, 144; $\alpha\alpha\beta$ -trimethyl- β -oxyadipic Acid, 604
- Blakesley (T. H.), Exact Formulae for Lenses, 165
- Blanc (G.), Camphenylene, 144; Action of Aluminium Chloride on Camphoric Anhydride, 192; Amines containing the Camphor Ring, 287; Synthesis of Campholic Acid, 407
- Blanchard (Prof. Émile), Death of, 370; Obituary Notice of, 473
- Blandford (W. F. H.), the Cambridge Natural History, 49
- Blanford (Dr. W. T., F.R.S.), the Dwyka (South Africa) Boulder-beds, 191; a Particular Form of Surface, the Result of Glacial Erosion, 311
- Blanksma (J. J.), Action of Sodium Mono- and Disulphides on Aromatic Nitro Compounds, 216
- Blatchford (A. G.), Geology of Western Australia, 259
- Bleier (Dr. Otto), Vapour Density of Sulphur, 64; True Molecular Weight of Gaseous Sulphur, 373
- Blowpipe Analysis, the Elements of, Frederick Hutton Getman, 176
- Blue Colour in Woad, on the, Dr. Charles B. Plowright, 331, 563
- Boccardi (Jean), Study of Latitude Variations, 383
- Bohr (C.), Solubility of Carbonic Acid in Alcohol at Various Temperatures, 554
- Bois (H. du), Molecular Susceptibility of Salts of Rare Earths, 432
- Bollettino della Società Sismologica Italiana, 23, 405, 504
- Bone (W. A.), Sym-dipropyl, Sym-diisopropyl and $\alpha\alpha$ -propylisopropyl Succinic Acids, 530
- Bonnefond (J.), Combinations of Lithium Chloride with Ethylamine, 239
- Bonnevie (Kristine), Zoology of Norwegian North Atlantic Expedition, 258
- Bonney (Prof. T. G., F.R.S.), the International Geography, 50; Die hochgebirge der Erde, Robert von Lendenfeld, 219
- Bonnier (Gaston), Plant-adaptation to Mediterranean Climate, 239
- Boodle (L. A.), on his Researches into the Stem-structure in *Schizosaceae*, *Gleicheniaceae* and *Hymenophyllaceae*, 67 *
- Book on Whales, a, F. E. Beddard, F.R.S., 585
- Borchers (Dr. W.), Electrolytic Processes in Industry, 206
- Borchgrevink's Antarctic Expedition, Return of, 544
- Bordier (H.), Specific Heat of Blood, 532
- Botany: Botany and the Indian Forest Department, Prof. W. Schlich, 6; the Indian Forest Service, W. F. Sinclair, 31; a Gutta-percha Plant, Prof. F. E. Weiss, 7; Les Arbres à Gutta-percha, leur Culture: Mission relativ à l'Acclimatation de ces Arbres aux Antilles et la Guyane, Henri Lecomte, 538; Self-grafting of Monocotyledons, Lucien Daniel, 24; Über den Habitus der Coniferen, Dr. A. H. Burt, 28; an English Station for Botanical Research in the Tropics (Ceylon), John C. Willis, 32; Mangabeira Rubber, 38; Peculiar Structures on Peritheces of *Phylactinea corylea*, E. S. Salmon, 46; Journal of Botany, 46, 262, 603; Death and Obituary Notice of William Pamplin, 59; Production of Indigo from Woad, Prof. Beyerinck, 71; on the Blue Colour in Woad, Dr. Charles B. Plowright, 331, 563; Linnean Society, 94, 142, 213, 264, 358, 406, 458, 506, 555, 627; the Antibes Carnation Disease, MM. Prillieux and Delacroix, 95; Absorption of Iodine by Plants, P. Bourcet, 96; Sylvia in Flowerland, Linda Gardiner, 102; Experiments on the Floral Colours, P. Q. Keegan, 105; Death and Obituary Notice of Prof. P. Knuth, 110; Histological Mortifications produced by Phytopus in Stems, Marion Molliard, 120; Comparative Anatomy of Encephalartos, W. C. Worsdell, 142; Poisonous Plants and Animals, J. E. Harting, 142; Resistance of Seeds to High Temperatures, Victor Jodin, 144; the Student's Flora of New Zealand and the Outlying Islands, Thomas Kirk, W. Botting Hemsley, F.R.S., 146; List of the Genera and Species of New Zealand Plants, A. Hamilton, W. Botting Hemsley, F.R.S., 146; Fertilisation of Flowers in New Zealand, Geo. M. Thomson, 504; a Practical Introduction to the Study of Botany: Flowering Plants, Prof. J. Bretland Farmer, 150; Intumescences on *Hibiscus vitalis*, E. Dale, 165; the North American Slime Moulds, Prof. T. H. MacBride, 173; the "Wilt" Disease of Cotton, &c., E. F. Smith, 186; the Yellow Potato-blight, Prof. T. Johnson, 191; First Mitosis of *Lilium* Spore-mother Cells, Dr. H. H. Dixon, 191; Double Fertilisation in *Lilium*, L. Guignard, 507; Chlorophyll Assimilations in Solar Light through Leaves, Ed. Griffon, 239; the Plant-adaptation to Mediterranean Climate, Gaston Bonnier, 239; Science Teachers in Conference, 283; the Culture of White Lupins, P. P. Dehérain and C. Demoussy, 287; Culture of Blue Lupins, P. P. Dehérain and E. Demoussy, 435; Soluble Ferments produced during Germination of Seeds with Horný Albumen, Em. Bourquelot and H. Hérissey, 287; Gli Agrumi, Prof. Antonio Aloj, 294; Das Geschlecht der Pflanzen, R. J. Camerarius, 293; Origin of Basidiomycetes, George Massee, 358; Experiments on Periodic Movement of Plants, D. F. M. Pertz and Francis Darwin, 359; Seminase, Em. Bourquelot and H. Hérissey, 384; Indian Corn, Kumagasa Minakata, 392, 515; W. F. Sinclair, 445; Nitragin and the Nodules of Leguminous Plants, Maria Dawson, 405; Digestion of Reserves in Seeds during Germination, M. Mazé, 407; Etherisation of Plants, Prof. W. Johannsen, 423; Plant Relations: a First Book of Botany, John Coulter, 422; a Fungus Disease of Cypress and Cedar, Dr. H. von Schrenk, 452; Hartley Botanical Laboratories of University College, Liverpool, 454; *Asplenium Bradleyi*, R. M. Middleton, 458; the Potency and Prepotency of Pollen, Prof. H. Marshall Ward, F.R.S., 470; the Essential Oil of *Darwinia fascicularis*, R. T. Baker and H. G. Smith, 483; Effect of Longitudinal Traction in Plant-stems, M. Thouvenin, 483; Variations in Haricots under Grafting, Lucien Daniel, 483; Misletoe-distribution in Belgium, E. Laurent, 520; Effect of Cold on Plant-nuclei, MM. L. Matruhot and Molliard, 531; Toxic Effects of Compounds of Alkaline Earths on Plants, Henri Coupin, 532; Chlorophyll, Formation in Dark, M. Radais, 532; List of Published Names of Plants introduced to Cultivation, 1876-1896, Kew Bulletin of Miscellaneous Information, Dr. Maxwell T. Masters, F.R.S., 537; Handbook of Tender Dicotyledons cultivated in the Royal Gardens, Kew, Dr. Maxwell T. Masters, F.R.S., 537; Botany of Mount Roraima, I. H. Burkitt, 555; Law of Separation of Hybrids, H. de Vries, 556; Grundzüge der geographisch-morphologischen Methode der Pflanzensystematik, Dr. R. von Wettstein, 563; Death of Mrs. Lankester, Bothamley (C. H.), Rural Education, 55
- Bottego, Seconda Spedizione. L'Omoo, Viaggio d'Esplorazione nell'Africa Orientale, L. Vannutelli and C. Citteri, 75
- Bottomley (J. F.), Ethyl Pentanohexacarboxylate, 405
- Bouchard (Ch.), Transformation of Fat into Glycogen in Organism, 555

- Bourcet (P.), Absorption of Iodine by Plants, 96
 Bourquelot (Em.), Soluble Ferments produced during Germination of Seeds with Horny Albumen, 287 ; Seminase, 384
 Bouveault (L.), Synthesis of Phrone of Camphoric Acid, 407
 Bouvier (H. H. P.), A Daylight Meteor, 279
 Bower (Prof.), on Fern Sporangia and Spores, 66
 Bowman (Dr. F. H.), Milk-preservation by Aération, 507
 Bowtell (N. E.), Action of Alcoholic Potash on Monobromoglutaric Ester, 264
 Boyce (Prof. R.), Oysters and Disease, 587
 Boyer (J.), Histoire des Mathématique, 510
 Boyhood of a Naturalist, the, Fred Smith, 246
 Boynton (W. B.), Gibbs' Thermodynamical Model, 414
 Boys (C. V., F.R.S.), the Theory of Water Finding by the Divining Rod: its History, Method, Utility and Practice, B. Tompkins, I
 Brace (Prof. D. B.), New System of Spectrum Photometry, 521
 Brady (G. S.), the Natural History Museum: a Correction, 540
 Braemer (Dr.), Atlas de Photomicrographie des Plantes Médicinales, 539
 Brain in Relation to Mind, Dr. J. Sanderson Christison, 295
 Brame (J. S. S.), Laboratory Note-book for Chemical Students, 412 ; Modern Explosives, 548
 Branly (Édouard), Transmission of Hertzian Waves through Liquids, 47 ; Increases of Resistance in Radio-conductors, 628
 Bräuer (Dr. P.), Aufgaben aus der Chemie und der Physikalischen Chemie, 489
 Brauner (Prof.), Position of Rare Earths in Periodic System, 64
 Bremer (Dr. K.), Aniline Dye Tests for Glucose, 215
 Bridges, Pontoon-based Swing, at Northwich, 135, 327
 Brightmore (Prof. A. W.), Floating Stones, 346
 Britain: the Silurian Rocks of Britain. Vol. i. : Scotland, B. N. Peach, F.R.S., and J. Horne, 25
 Britain, Animals of, and their Origin, Dr. R. F. Scharff, 341
 British Animals, Types of, F. G. Afalo, 77
 British Association, Meeting at Bristol, 1898, Sir William Crookes' Presidential Address to the, Sir R. Giffen, K.C.B., F.R.S., 169
 British Association, Meeting at Dover. *Section E (Geography) continued.*—Account of the Trial Trip of the Great Russian Ice-breaker, *Yermak*, Admiral Makaroff, 17 ; Arctic Exploration, Walter Wellman, 17 ; Account of the Cruise of Sir George Newnes' Yacht, *Southern Cross*, from Hobart to Cape Adare, Dr. H. R. Mill, 18 ; Account of the Voyage and Wintering of the Belgian Expedition in the Antarctic Ice-pack South-west of Cape Horn, H. Arctowski, 18 ; Further Work required in Antarctic Exploration and Method of conducting it, H. Arctowski, 18 ; Physical and Chemical Work required for an Antarctic Expedition, J. Y. Buchanan, F.R.S., 18 ; Prof. Rücker, Major Darwin, Mr. George Murray, Dr. Koettlitz on Antarctic Exploration, 19 ; Dr. Gerhard Schott on the Chief Results of the Voyage of the *Valdivia*, 19 ; Observations of Temperature of Water and Air round the British Isles, H. N. Dickson, 19 ; on the Temperature and Salinity of the Surface Water of the North Atlantic during 1896 and 1897, H. N. Dickson, 19 ; Suggested System of Terminology for the Forms of Sub-oceanic Relief, Dr. H. R. Mill, 19 ; on the Relation of Christmas Island to the Neighbouring Lands, C. W. Andrews, 19 ; Progress of the Work of the Ordnance Survey during the last Twelve Years, Colonel Sir John Farquharson, 20 ; Mr. Vaughan Cornish on the Sand-dunes bordering the Delta of the Nile, dealing with the Ripples, Sand-dunes and Dune-tracts in turn, 20 ; Mr. E. Hewood on the Date of the Discovery of Australia, 20
Section G (Mechanical Science) continued.—Messrs. Goode and Matthews on the Admiralty Harbour Works at Dover, 20 ; Sir Charles Hartley on the Engineering Works of the Suez Canal, 21 ; Mr. Parsons on Details of the Fast Cross-Channel and Atlantic Liners, 21 ; Mr. Mark Robinson on the Niclausse Water-tube Boiler, 21 ; Captain Lloyd on a Method which has been developed at Elswick for discharging Torpedoes below Water from the Broadsides of a Ship when Steaming at a High Speed, 21 ; M. Alby on the Construction and Erection of the Alexander III. Bridge

- over the Seine in Paris, 21 ; Mr. Cowper-Coles on some Recent Applications of Electro-metallurgy to Mechanical Engineering, 21 ; Mr. Thornycroft on Recent Experiences with Steam on Common Roads, 22 ; Mr. Edward Case on the Dymchurch Sea-wall and the Reclamation of the Romney Marshes, 22
Section H (Anthropology) continued.—Mr. E. R. Henry on Finger Prints as a Method for the Identification of Criminals, 42 ; Mr. Sidney H. Ray on the Linguistic Results of the Cambridge Expedition to Torres Straits and New Guinea, 42 ; Mr. C. S. Myers on Savage Music in Murray Island and Sarawak, 42 ; Mr. C. G. Seligmann, Account of the Seclusion of Girls at Puberty, in Mabuiag, and other of the Western Islands of Torres Straits and also on the Mainland at Cape York, 43 ; Mr. C. G. Seligmann on the Club Houses and Dabus of British New Guinea, 43 ; Dr. W. H. R. Rivers on the Investigations on Comparative Psychology made in Torres Straits and New Guinea, 43 ; Mr. A. J. Evans on the Occurrence of Celtic Types of Fibulae of the Hallstatt and La Tène Periods in Tunisia and Eastern Algeria, 43 ; Mr. G. Coffey on Irish Copper Celts, 43 ; Mr. J. Gray on Recent and Most Excellent Ethnographical Work in East Aberdeenshire, 43 ; Mr. D. MacIver on Recent Anthropometrical Work in Egypt, 43 ; Prof. W. M. Flinders Petrie on Sequences of Prehistoric Remains, 43 ; Prof. W. M. Flinders Petrie on Early Mediterranean Signaries and the Sources of the Alphabet, 44 ; Dr. A. C. Haddon on the Yaraikanna Tribe of Cape York, 44 ; Mr. W. Crooke on the Primitive Rights of Disposal of the Dead as Illustrated by Survivals in Modern India, 44 ; Mr. R. R. Marett on Pre-animistic Religion, 44 ; Colonel R. C. Temple on the Thirty-seven Nats (or Spirits) of the Burmese, 44 ; Dr. W. H. R. Rivers on Two New Methods of Anthropological Research, 44 ; Ethnographic Survey of Canada, 45
Section K (Botany) continued.—Mr. W. Williams on the Life-history and Cytology of *Halidrys Siliquea*, 65 ; Prof. Marshall Ward on his Recent Work on *Oxygenia equina*, a Horn-destroying Fungus, 65 ; Mr. R. H. Biffen, Account of *Bulgaria polymorpha* (Wettstein) as a Wood-destroying Fungus, 66 ; Mr. A. Howard on a Disease of *Tragopogon*, 66 ; Prof. Potter on a Bacterial Disease—White Rot—of the Turnip, 66 ; Mr. Harold Wager on the Phosphorus-containing Elements in Yeast, 66 ; Prof. Ward on Methods for Use in the Culture of Algae, 66 ; Mr. W. G. Freeman on the *Anabaena*-containing Roots of some Cycads, 66 ; Mr. E. J. Butler on a Mixed Infection in *Abutilon* Roots, 66 ; Prof. Bower on Fern Sporangia and Spores, 66 ; Mr. L. A. Boodle on his Researches into the Stem-structure in *Schizaceae*, *Gleicheniaceae* and *Hymenophyllaceae*, 67 ; Sir William Thiselton-Dyer on Some Experiments made by Prof. Dewar on the Influence of the Temperature of Liquid Hydrogen on the Germinative Power of Seeds, 67 ; Mr. Francis Darwin on Investigations on the Localisation of the Irritability in Geotropic Organs, 67 ; Mr. J. Parkin on Some Isolated Observations Bearing on the Function of the Latex, 67 ; Mr. R. H. Biffen on India-rubber, 68 ; Mr. J. C. Willis on the Morphology and Life-history of the Indo-Ceylonese Podostemaceæ, 68 ; Prof. Douglas Campbell on the Development of the Flowers and Embryos of Various Species of Araceæ, 68 ; Mr. G. Dowker on the Sand-dunes between Deal and Sandwich, with Remarks on the Flora of the District, 68 ; Miss Dale on Intumescences of *Hibiscus villosus*, 68 ; Prof. Bertrand on the Structure of a Stem of a Ribbed *Sigillaria*, 68 ; Prof. F. E. Weiss on a Biserial *Halonia* belonging to the Genus *Lepidophloios*, 68 ; Mr. A. C. Seward on a New Genus of Palæozoic Plants, 69 ; Mr. A. C. Seward on the Jurassian Flora of Britain, 69 ; Mr. A. C. Seward and Miss J. Gowan on the Morphology and Geological History of the Maidenhair Tree (*Ginkgo biloba*), 69 ; Corresponding Societies of the British Association, 115 ; Rev. T. R. R. Stebbing on the Living Subterranean Fauna of Great Britain and Ireland, 116
 British Breeding Birds, Our Rarer, their Nests, Eggs and Summer Haunts, R. Kearton, 323
 British Dragonflies, W. J. Lucas, 418
 British Fisheries Investigations, the Stockholm Fisheries Conference and, E. J. Allen, 227, 275
 British Journal Photographic Almanac for 1900, 175

Broadbent
wick W
Broca (A)
Brochet (L)
Brodie (L)
Brough (L)
mining
Brown (L)
Neptun
Brownings
Pottas
Brownings
Slipper
Bruce (C)
Britches
Durant
Bruyn (L)
Bryan (L)
Chimie
73 ; the
of Gal
Kinetic
matic
568 ;
Bryan
Buchanan
require
Budge
Egypt
Budgett
Buenos
Bulgaria
Buletin
577-
Buletin
Bulbar
Billia
Burdon
and
Bureau
Borghes
Bürker
Dust
Burkhill
Burme
R. C.
Bursta
299
Burt (L)
Busqu
Butler
Butler
Butter
50 ;
Butter
Cable
Cable
End
Calcum
415
Calcum
ton
Calem
Calif
Ho
Callao
Sat
Calle
Wa
Te
Calm
85
Cam
Te
Ca
for
35
ma

- Broadbent (Dr.), the "Silver Thread" Phenomenon in Giggleswick Well, 70
- Broca (André), *La Télégraphie sans Fils*, 243
- Brochet (H. A.), Electrolysis of Potassium Chloride, 312, 508
- Brodie (F. J.), Wire Fences and Lightning, 258
- Brough (Bennett H.), a Rudimentary Treatise on Coal and Coal-mining, Sir Warrington W. Smyth, F.R.S., 411
- Brown (Prof. S. J.), Determination of Axis and Compression of Neptune, 621
- Browning (K. C.), Reaction between Sulphuric Acid and Potassium Ferrocyanide, 190
- Browning (P. E.), Estimation of Thallium as Acid and Neutral Sulphate, 432
- Bruce (Catherine Wolfe), Death of, 54
- Brünhes (B.), Measurement of Velocity of Röntgen Rays, 311; Duration of Emission of Röntgen Rays, 604
- Bruyn (Prof. L. de), *d*-Sorbinose and *L*-Sorbinose, 216
- Bryan (Prof. G. H., F.R.S.), *Traité élémentaire de Mécanique Chimique fondée sur la Thermodynamique*, Prof. P. Duhem, 73; the Resistance of the Air, 107, 248; the Kinetic Theory of Gases, Dr. Oskar Emil Meyer, 289; a Treatise on the Kinetic Theory of Gases, S. H. Burbury, 289; the Mathematical Tripos, 346; Obituary Notice of Eugenio Beltrami, 508; Obituary Notice of Joseph Bertrand, 614
- Bryant (Sophie), Euclid, Books I.-IV., 102
- Buchanan (J. Y., F.R.S.), Physical and Chemical Work required for an Antarctic Expedition, 18
- Budge (E. A. Wallis), Books on Egypt and Chaldea. Egyptian Ideas of the Future Life; Egyptian Magic, 437
- Budgett (J. S.), Polypterus and Protopterus, 166
- Buenos Aires, *Anales del Museo Nacional de*, 46, 372
- Bulgarian Lepidoptera, H. J. Elwes, 627
- Bulletin of American Mathematical Society, 93, 213, 404, 554, 557. *See* Transactions.
- Bulletin de la Société Astronomique de France, 577
- Burbury (S. H., F.R.S.), the Kinetic Theory of Gases, 289; Billiards Mathematically Treated, G. W. Hemming, 410
- Burdon-Sanderson (Sir J. Bart.), the Relation between Science and Medicine, 254
- Bureau (Ed.), *Equisetum Jolji*, 384
- Burghard (F. F.), a Manual of Surgical Treatment, 176
- Bürker (K.), Mixture of Three Powders for producing Electric Dust-figures, 627
- Burkhill (J. H.), Botany of Mt. Roraima, 555
- Burmese, On the Thirty-seven Nats (or Spirits) of the, Colonel R. C. Temple, 44
- Burstell (Prof. F. W.), American Higher Technical Education, 299
- Burt (Dr. A. H.), Ueber den Habitus der Coniferen, 28
- Busquet (Paul), *Les Étés Vivants*, 608
- Butler (Charles P.), *Echelon Film Gratings*, 275
- Butler (E. J.), On a Mixed Infection in *Abutilon* Roots, 66
- Butterflies, Birds capturing, F. Finn, 55; Oswald H. Latter, 56; Howard Fox, 152; George A. Soper, 491
- Butterfly Shadows, Commander D. Wilson-Barker, 128
- Cable, an Aluminium Electric, 399
- Cables, Submarine, the Action of Electric Tramways on Land End of, Prof. Andrew Jamieson, 595
- Calculate, to, a Simple Table of Logarithms, Dr. Arthur Duxton, 415; Prof. John Perry, F.R.S., 415
- Calculating Logarithms, Mechanical Method of, H. C. Pocklington, 469
- Calendar, Difficulties of the, W. T. Lynn, 493
- California, the Evidence as to Auriferous Gravel Man in, W. H. Holmes, 206
- Callandreau (O.), Anomaly in Movement of Jupiter's Fifth Satellite, 287
- Callendar (Prof. H. L., F.R.S.), a Text-book of Physics, W. Watson, 537; Heat for Advanced Students, Edwin Edser, 557; Text-book of Experimental Physics, Eugene Lommel, 557
- Calmette's Antivenene, Snake-bite Cured by, Major S. J. Rennie, 85
- Cambridge: Linguistic Results of the Cambridge Expedition to Torres Straits and New Guinea, Sidney H. Ray, 42; the Cambridge Natural History, David Sharp, W. F. H. Blandford, 49; Cambridge Philosophical Society, 95, 165, 214, 359, 458, 482, 507; the Proposed Changes in the Mathematical Tripos, 106, Prof. G. H. Bryan, 346; Engineering at Cambridge, 346; the Cambridge Crystallography, W. J. Lewis, Prof. H. A. Miers, F.R.S., 485; Sir Michael Foster, K.C.B., M.P., and his Pupils, 497
- Camerarius (R. J.), *Das Geschlecht der Pflanzen*, 293
- Campbell (Prof. Douglas), on the Development of the Flowers and Embryos of various Species of Araceae, 68
- Campbell (J. R.), the Eradication by Spraying of Charlock and Runch, 186
- Campbell (Prof. W. W.), Spectroscopic Binary Stars, *a* Aurigae, *a* Ursae Minoris, 114
- Canada: Ethnographic Survey of, 45; Alaska and the Klondike: a Journey to the New Eldorado, with Hints to the Traveller and Observations on the Physical History and Geology of the Gold Regions, the Conditions of Working the Klondike Placers, and the Laws Governing and Regulating Mining in the North-west Territory of Canada, Angelo Heilprin, 122; Canadian Lake of Subterranean Inflow, Andrew T. Drummond, 128; Mineral Production in 1899 of Canada, E. D. Ingall, 545
- Canal, the Chicago Drainage, 353
- Canal, the Soulages, 40
- Cancani (Dr. A.), the Latian Earthquake of July 19, 1899, 573
- Cancer, Morphology of Carcinomatous Blastomycetes, K. W. Montserrat, 285
- Canton (M.), Absorption of Light in Electrically Glowing Gases, 626
- Cape of Good Hope Meteorological Report for 1898, 39
- Carbon: the Story of the Wanderings of Atoms, especially those of Carbon, M. M. Pattison Muir, 126; Determination of Radicles in, Dr. H. Meyer, 538
- Carriers in the Kathode Rays, on the, W. B. Morton, 365
- Carus-Wilson (Cecil), Floating Stones, 318
- Carvallo (E.), Nature of White Light, 287
- Case (Edward), on the Dymchurch Sea-wall and the Reclamation of the Romney Marshes, 22
- Cash (Joseph), Artificial Silk, 156
- Castle (Frank), Elementary Practical Mathematics, 53
- Caucasian Vine-disease, *a*, MM. Prillieux and Delacroix, 385
- Cause (H.), Contaminated Lyons Well-waters, 459; Detection of Cystine in Water, 531
- Cave-Ice, the Origin and Occurrence of, Dr. Hans Lohmann, 591
- Cazeneuve (P.), Mode of Synthesis of Parabanic Acid, 120; Preparation of Carbazides, 239
- Celebes, the Birds of, A. B. Meyer and L. W. Wiglesworth, 605
- Celestial Photography, Photographs of Stars, Star Clusters and Nebulae, together with Records of Results obtained in the pursuit of, Dr. Isaac Roberts, F.R.S., Dr. William J. S. Lockyer, 533
- Celestial Photometry, Prof. Dr. G. Müller, 509
- Cell-theory, Inadequacy of, *Les Étés Vivants*, par Paul Busquet, 609
- Centenary of the Berlin Academy of Sciences, the, 469
- Central Star of Ring Nebula in Lyra, W. Strattonoff, 260
- Century of Science and other Essays, *a*, John Fiske, 390
- Céramique, *la*, Ancienne et Moderne, E. Guignat et E. Garnier, 466
- Ceraski's First Algol Variable, Light Curve of, 355
- Ceraski's Second Algol Variable, Prof. E. C. Pickering, 454
- Cerebrum in Recent as compared with Extinct Mammalia, Significance of Increased Size of, Prof. E. R. Lankester, F.R.S., 624
- Ceylon, an English Station for Botanical Research in the Tropics, John C. Willis, 32
- Chadwick (O.), a Treatise on Surveying, 150
- Chaldaea, Books on Egypt and, Egyptian Ideas of the Future Life, Egyptian Magic, E. A. Wallis Budge, Frank Rede Fowke, 437
- Changes of Colour of Prawns, F. W. Keeble and F. W. Gamble, 552
- Channel, English, Water-temperature of Mouth of, Mr. Garsang, 450
- Chapman (E. M.), Action of Fuming Nitric Acid on *a*-dibromocamphor, 335; Acids obtained from *a*-dibromocamphor, 505
- Chardonnet Process of Manufacturing Artificial Silk, the, Joseph Cash, 156
- Chauveau (A. B.), the Diurnal Variations of Atmospheric Electricity, 136
- Chavastillon (R.), Separation of Rare Earths, 531
- Chemistry: *Essais des Huiles Essentielles*, Henri Labbé, 5;

Chemistry for Organised Schools of Science, S. Parrish, 5; on the Distribution of the various Chemical Groups of Stars, Sir Norman Lockyer, K.C.B., F.R.S., 8; Simultaneous Oxidation and Hydration under Free Oxygen and Light, Daniel Berthelot, 24; *Essai critique sur l'Hypothèse des Atomes dans la Science contemporaine*, Arthur Hannequin, 26; Laboratory Outline of General Chemistry, Alexander Smith, 27; Eudesmol, H. G. Smith, 47; Atomic Weight of Boron, H. Gautier, 48; Mixed Oxyhydrides of Fatty and Aromatic Acids, H. A. Béhal, 48; Naphthopurpurin, G. F. Jaubert, 48; *Einführung in die Chimie in leichtfasslicher Form*, Prof. Dr. Lassar-Cohn, 51; *L'Industrie des Matières Colorantes Azoïques*, George F. Jaubert, 53; Arithmetical Exercises in Chemistry, Leonard Dobbins, 53; Laboratory Manual: Experiments to illustrate the Principles of Chemistry, H. W. Hillyer, 52; the Preparation of Metallic Cesium, Herren Graeffe and Eckhardt, 61; Experiments on Condensation of Aromatic Diamines with Dibasic Acids of Oxalic Series, Richard Meyer, 63; Condensation Products of Benzaldehyde with Succinic Ethers, Dr. H. Stobbe, 63; Mechanism of Passage of Hydroxylamines into Amidophenoles, Prof. Bamberger, 63; the Aldoles, Prof. Lieben, 64; Position of Rarer Earths in Periodic System, Prof. Brauner, 64; Researches in Camphor Series, Dr. Dulden, 64; the Colloid Metals, Prof. E. von Meyer and Dr. Lattermann, 64; Base obtained by Action of Hydrochloric Acid on Albumen, Rudolf Cohn, 65; Vapour and Density of Sulphur, Dr. Otto Bleier, 64; True Molecular Weight of Gaseous Sulphur, O. Bleier and L. Kohn, 373; Liquid Sulphur Dioxide as an Ionising Solvent, Prof. Walden, 114; Attempts to Resolve into Active Constituents Compounds containing Asymmetric Sulphur Atoms, S. Smiles, W. J. Pope and S. J. Peacheay, 373; Sulphur Perfluoride, Henri Moissan and P. Lebeau, 579; a Sulphur Fluoride Gas, Henri Moissan, 596; Density and Analysis of Sulphur Perfluoride, Henri Moissan and P. Lebeau, 603; Glycogen, Armand Gautier, 71; Molybdenum Dioxide, Marcel Guichard, 71; Rhamnose, C. and G. Tanret, 71; Mixture Crystals of HgI_2 with $HgBr_2$, Dr. W. Reinders, 71; Production of Indigo from Woad, Prof. Beyerinck, 71; on the Blue Colour in Woad, Dr. Charles B. Plowright, 331, 563; *Traité élémentaire de Mécanique Chimique fondé sur la Thermodynamique*, P. Duhem, Prof. G. H. Bryan, F.R.S., 73; Death of Prof. Ferdinand Tiemann, 84; Obituary Notice of, 133; the Hurter Memorial Lecture, Prof. G. Lunge, 92; Action of Acetylene on Metallic Oxides, F. A. Gooch and D. Baldwin, 93; Wiedemann's Annalen (now Annalen der Physik), 93, 190, 262, 432, 554, 626; Chemical Society, 94, 119, 190, 204, 335, 405, 434, 505, 530, 627; the Theory of Saponification, J. Lewkowitsch, 94; Action of Dilute Nitric Acid on Oleic and Elaidic Acids, F. G. Edmed, 94; Formation of Tetrazoline, S. Ruhemann and H. E. Stapleton, 94; Asymmetric Optically Active Nitrogen Compounds, W. J. Pope and S. J. Peacheay, 94, 96; Camphoroxime, M. O. Forster, 94; Electrolytic Preparation of Indulin Dyes, E. C. Szarvary, 94; Action of Sulphuric Acid on Fenochrome, J. E. Marsh, 94; Atomic Weight of Metal in Radio-active Barium Chloride, Mme. S. Curie, 96; the Crystallised Phosphides of Strontium and Barium, A. Jaboin, 96; Estimation of Phosphorus in Organic Compounds, Ch. Marie, 96; Absorption of Iodine by Plants, P. Bourcet, 96; Inorganic Chemical Preparations, Felix Lengfeld, 101; Japaconitine, W. R. Dunstan and H. M. Read, 119; Solid Ammonium Cyanate, J. Walker and J. K. Wood, 119; Amarine and Isoamarine, F. R. Japp and J. Moir, 119; Atomic Weight of Nitrogen, G. Dean, 119; Action of Fluorine and Hydrofluoric Acid on Glass, Henri Moissan, 119; Chemical Effects of Becquerel Rays, M. and Mme. Curie, 120; Reciprocal Displacement of Metals, Albert Colson, 120; Action of Nitric Oxide on Chromic Dichlorhydrin, V. Thomas, 120; a Methylene Sulphate, Marcel Delépine, 120; Mode of Synthesis of Parabanic Acid, P. Cazeneuve, 120; Memoirs and Correspondence of Lyon Playfair, First Lord Playfair of St. Andrews, LL.D., F.R.S., Sir Wemyss Reid, 121; Inorganic Chemistry for Advanced Students, Sir Henry E. Roscoe, F.R.S., and Arthur Harden, 125; Elementary Practical Chemistry, A. J. Cooper, 126; Chemical Action of Röntgen Rays, P. Villard, 143; Interaction of Hydrogen and Silver Chloride, M. Journaux, 143; Camphenylene, E. E. Blaise and G. Blanc, 144;

Colouring Matter of Digitalis, MM. Adrian and A. Trillart, 144; the Explosion of Potassium Chlorate, Daniel Berthelot, 166; Dissociation of Potassium and Ammonium Iodomercurate by Water, Maurice François, 167; Preparation of Tetrachloro- and Tetrabromo-orthoquinones, H. Cousin, 167; Descriptive General Chemistry, S. E. Tilman, 175; Dairy Chemistry: a Practical Handbook for Dairy Chemists and others having Control of Dairies, H. Droop Richmond, 176; the Elements of Blowpipe Analysis, Frederick Hutton Getman, 176; Death and Obituary Notice of E. C. C. Stanford, 184; Recent Researches on Uric Acid, Prof. Emil Fischer, 187; Oxalacetic Acid, H. J. H. Fenton and H. O. Jones, 190; Constitution of Fatty Acids (ii.), A. W. Crossley and H. R. Le Sueur, 190; Reaction between Sulphuric Acid and Potassium Ferrocyanide, R. H. Adie and K. C. Brownning, 190; Sulphates of Bismuth, R. H. Adie, 190; Sulphates of Form $R_2SO_2MSO_4$, F. R. Mallet, 190; the Preparation of Benzeneazoorthonitrophenol, J. T. Hewitt, 199; General Method for Estimating some Elements in Organic Compounds, Daniel Berthelot, 192; Action of Aluminium Chloride on Camphor Anhydride, G. Blanc, 192; Alkalimetry of Amines, A. Astruc, 192; Death and Obituary Notice of Paul Knuth, 205; Researches in Sugar Group, H. J. H. Fenton and H. Jackson, 215; Acetylene Derivatives, Dr. E. H. Keiser, 215; Aniline Dye Tests for Glucose, Dr. K. Bremer, 215; *d*-Sorbinose and *L*-Sorbinose, Prof. L. de Bruyn and W. A. van Ekenstein, 216; Action of Sodium Mono- and Disulphides on Aromatic Nitro-compounds, J. J. Blanksma, 216; Beginselen der Scheikunde, Dr. M. C. Schuyten, 220; Handbook of Physics and Chemistry, H. E. Corbin and A. M. Stewart, 221; Constitution of Fulminates, Dr. R. Scholl, 236; Molybdenum Silicide, E. Vigouroux, 239; Molybdenum Disulphide, Marcel Guichard, 239; Cacodylic Acid, Henri Hibbert, 239; Anhydrous Sesquichlorides of Rhodium and Iridium, E. Leidie, 239; Biochemical Oxidation of Propylglycol, André Kling, 239; Preparation of Carbazides, P. Cazeneuve and M. Moreau, 239; Combinations of Lithium Chloride with Ethylamine, J. Bonnefond, 239; Estimation of Halogens in Organic Compounds, Amand Valeur, 239; the Tautomerism of Benzoyl-Benzoic Acid, A. Haller and A. Guyot, 239; Anleitung zur Darstellung Chemischer Präparate, Ein Leitfaden für den praktischen Unterricht in der Anorganischen Chemie, Prof. Dr. H. Erdmann, 246; Solubility of Argon and Helium in Water, Dr. T. Estreicher, 260; Rotatory Powers of Aromatic Hydrocarbons, W. H. Perkin, sen., 264; Formation of α - and β -Acrose from Glycolic Aldehyde, H. Jackson, 264; Interaction of Mercurous Nitrite and Ethyl Iodide, P. C. Rây, 264; Action of Alkyl Iodides on Fatty Mercuric Iodide Sulphides, S. Smiles, 264; Braslin and Haematoxylin, III, A. W. Gilbody and W. H. Perkin, jun., 264; Action of Alcoholic Potash on Monobromoglutaric Ester, N. E. Bowtell and W. H. Perkin, jun., 264; Action of Chloroform and Potassium Hydroxide on Orthoamidobenzoic Acid, W. J. Elliott, 264; Indicators and Test Papers, Alfred I. Cohn, 269; Optical Activity and Chemical Composition, Dr. H. Landolt, 269; Vapour-density of Bromine at High Temperatures, E. P. Perman and G. A. S. Atkinson, 285; Manganic Oxidation of Citric and Malic Acids, G. Deniges, 287; Amines containing Camphor Ring, G. Blanc, 287; Allotropy of Benzophenone, G. de Coninck, 287; Soluble Ferments produced during Germination of Seeds with Horny Albumen, Em. Bourquelot and H. Hérissey, 287; the Rhodio-cyanides, E. Leidie, 288; New Micro-chemical Reactions of Copper, M. Pozzi-Escot, 288; Leçons de Chimie Physique, J. H. van't Hoff, 294; Products of Explosion of Acetylene, W. G. Mixter, 310; Constitution of Ammonium-magnesium Arseniate of Analysis, Martha Austin, 310; Discharge of Electrified Bodies and Ozone Formation, P. Villard, 311; Electrolysis of Potassium Chloride, A. Brochet, 312; New Crystallised Molybdenum Sulphide, Marcel Guichard, 312; the van't Hoff Celebration at Rotterdam, Dr. H. M. Dawson, 321; Studies of Tin, MM. Cohen and van Eijk, 330; Electrolysis of Nitrogen Hydrides and Hydroxylamine, E. C. Szarvary, 335; Action of Fuming Nitric Acid on *d*-bromocamphor, E. M. Chapman and A. Lapworth, 335; Substituted Hydroxytriazoles, G. Young and E. Witham, 335; Mixture of Dry Silver Oxide and Alkyl Halides as Alkylating Agent, G. D. Lander, 335; New Method of determining Aluminium, Alfred Stock, 336; the Metallic Borates, L. Ouvarré, 336; Borates of Magnesium Series, L. Ouvarré, 338; a

- Crystallised Fibrin, L. Maillard, 336; The Letters of Faraday and Schönbein 1836-1862, with Notes, Comments and References to Contemporary Letters, Prof. R. Meldola, F.R.S., 337; the Formula of Hyposulphurous Acid, Herr Bernthsen, 354; Exact Atomic Weight of Nitrogen, G. Dean, 355; Gold-Aluminium Alloys, C. T. Heycock, F.R.S., and F. H. Neville, F.R.S., 357; Detection of Silver in presence of Mercury Amido-chloride, F. Leteur, 360; Action of Copper on Acetylene, Paul Sabatier and T. B. Senderens, 360; Isopyromucic Acid, L. J. Simon, 360; Volumetric Estimation of Hydrogen, Alb. Colson, 384; Action of Strong Ammonia Solution on Iodide of Mercuriammonium, Maurice François, 384; Equilibre des Systèmes Chimiques, J. Willard Gibbs, 390; the Homogeneity of Tellurium, Messrs. Norris, Fay and Edgerley, 402; Heterocyclic Compounds, S. Ruhemann and H. E. Stapleton, 405; Methylthethylthetene Dextrocamphor Sulphonate and Dextro- α -bromo-camphor Sulphonate, W. J. Pope and S. J. Peachey, 405; Nitrocamphane, M. O. Forster, 405; Isoamarine, F. R. Japp and J. Moir, 405; Ethyl Pentanehexacarboxylate, J. F. Bottomley and W. H. Perkin, jun., 405; Volumetric Estimation of Potassium, R. H. Adie and T. B. Wood, 405; Synthesis of Campholic Acid, A. Haller and G. Blanc, 407; Synthesis of Phorone of Camphoric Acid, L. Bouveault, 407; Composition of East Indian Sandal Wood Essence, M. Guerbet, 407; Transformation of Nitrobenzene into Aniline by Horse-kidney Ferment, E. Abelous and E. Gérard, 407; Laboratory Note book for Chemical Students, Prof. Vivian B. Lewes and J. S. S. Brame, 412; Untersuchungen über die Chemischen Affinitäten, C. M. Guldberg and P. Waage, 412; Chemical Industry in Japan, 421; Advancement of Electrical Chemistry, Dr. F. Mollwo Perkin, 428; Action of Ammonium Chloride on Analcite and Leucite, F. W. Clarke and G. Steiger, 432; Estimation of Thallium as Acid and Neutral Sulphate, P. E. Browning, 432; Ammonium Amidosulphite, E. Divers and Masataka Ogawa, 434; Products obtained by Heating Ammonium Sulphites, Thiosulphate and Tritionate, E. Divers and Masataka Ogawa, 434; Colour of Alkali Nitrates, E. Divers, 434; Combination of Sulphur Dioxide with Oxygen, E. J. Russell and N. Smith, 434; Influence of "Nascent State" in Combination of Dry Carbon Monoxide and Oxygen, E. J. Russell, 434; Dextromethylethyl- α -propyl Tin Iodide, W. J. Pope and S. J. Peachey, 434; Bromo-derivatives of Campho-pyric Acid, J. A. Gardner, 434; Preparation of Arsenides, &c., P. Lebeau, 435; Iodide of Nitrogen, C. Hugot, 435; Resolution of Racemic Benzylidene Camphor, J. Minguin, 435; Rapid Method for determining Carbonic Acid in Gaseous Mixtures, Leo Vignon and Louis Meunier, 435; Volumetric Estimation of Boric Acid, Alfred Stock, 435; Elementary Chemistry for High Schools and Academies, Albert L. Arey, 442; A Manual of Chemistry, Inorganic and Organic, Dr. Arthur P. Luff and Frederick J. M. Page, 442; New Iodide of Nitrogen, Prof. Hantzsch, 453; the Osmotic Pressure Analogy, Prof. Leibfeldt, 453; Pyrrol-aldehyde, Herren Bamberger and Djerdjian, 453; Relative Effusion Rates of Argon, Helium and other Gases, Dr. F. G. Donnan, 457; the Distillation of Liquid Air, E. C. C. Baly, 457; Uses of Liquid Air for Researches at Low Temperatures, Prof. Ramsay, 458; Composition of Hydrofluoric Acid by Volume, Henri Moissan, 459; Association of Molecules in Liquids, Daniel Berthelot, 459; Oxidation by Ferricyanides, A. Etard, 459; Estimation of Ammonia and Nitrogen, A. Villiers and E. Dumesnil, 459; Chemical Equilibrium of a Four-gas System, H. Pélabon, 459; Contaminated Lyons Well-waters, H. Causse, 459; New Colour reaction of Tyrosine, G. Deniges, 459; Les Sucres et leurs principaux Dérivés, Prof. L. Maquenne, Prof. R. Meldola, F.R.S., 461; Death of Dr. W. Marct, F.R.S., 475; Death of William Thorpe, 475; New Gas Furnace, Armand Gautier, 478; New Fluoride of Manganese, Henri Moissan, 478; a Pure Proteid from Egg-white, F. G. Hopkins, 482; Iodine in New South Wales Copper Ores, Arthur Dieseldorf, 483; Action of Silver Salts on Solution of Ammonium Persulphate, Dr. Hugh Marshall, 483; Magnesium Perfluoride, Henri Moissan, 483; Phosphides of Iron, Nickel, Cobalt and Chromium, G. Maronneau, 483; Eugenol, Safrrol and Propylpyrocatechol, R. Delange, 483; Diazotising of Safranine, G. F. Jaubert, 483; Leitfaden für den Unterricht in der Anorganischen Chemie, Dr. Sperber, 489; Aufgaben aus der Chemie und der physikalischen Chemie, Dr. P. Bräuer, 489; Jaborine, H. A. D.
- Jowett, 505; Isomeric partially Racemic Salts containing Quinquevalent Nitrogen, F. S. Kipping, 505; New Syntheses of Indene, F. S. Kipping and H. Hall, 505, 547; Non-existence of Dihydroxylamine Derivatives of Potassium Nitrite, E. Divers and T. Haga, 505; Acids obtained from α -dibromocamphor, A. Lapworth and E. M. Chapman, 505; Campholytic and Isalauronolic Acids, J. Walker and W. Cormack, 505; Iodonium Compounds, F. S. Kipping and H. Peters, 506; Decomposition of Semicarbazones, F. S. Kipping, 506; Production of Nitric Acid from Air by Electric Flame, A. McDougall and F. Howles, 507; New Reaction between Aromatic Aldehydes and Sodium Derivative of Borneol, A. Haller, 507; Action of Hydrogen Peroxide on Baryta, M. de Forcrand, 508; Electrolysis of Potassium Chloride, H. A. Brochet, 508; Solubility of Benzophenone, E. Derrien, 508; Acetals of Phenols, R. Fosse, 508; Practical Chemistry, William French, 514; an Introduction to Qualitative Analysis, H. P. Highton, 514; Vapour Densities of Dried Mercury and Mercurous Chloride, H. B. Baker, 530; Pure Hydrobromic Acid, A. Scott, 530; New Sulphide of Arsenic, A. Scott, 530; Action of Iodine on Alkalies, R. L. Taylor, 530; Sym-dipropyl, Sym-di-isopropyl and $\alpha\beta$ -propylisopropyl-succinic Acids, W. A. Bone and C. H. G. Sprankling, 530; Manno-galactan and Levulo-mannan, J. L. Baker and T. H. Pope, 530; Dissociation Constant of Azoimide, C. A. West, 530; Racemisation during Formation of Benzylidene, Benzoyl, and Acetyl Derivatives of Dextro-acetotetrahydro- β -Naphthylamine, W. J. Pope and A. W. Harvey, 530; Determination of Radicals in Carbon Compounds, Dr. H. Meyer, 538; Death and Obituary Notice of Prof. Pepper, 545; No Isomerism in Sodium Potassium Sulphite, Dr. Fraps, 547; Modern Explosives, J. S. S. Brame, 548; Solubility of Carbonic Acid at Low Temperatures, C. Bohr, 554; Hexagonal Form of Selenide of Zinc, M. Fonze-Diacon, 556; New Compound of Antipyrin and Mercuric Chloride, J. Ville and Ch. Astre, 556; Science Course for Secondary Schools, G. Robb and J. Minguet, 562; Produits Aromatiques, Artificiels et Naturels, Dr. G. F. Jaubert, 563; the Velocity Change of White into Grey Tin, Dr. Cohen, 573; Action of Hydrogen on Antimony Sulphide, H. Pélabon, 580; an Arsenide of Nickel, Albert Granger and Gaston Didier, 580; Biphosphide of Tungsten, Ed. Defacqz, 580; a New Terpenic Alcohol and its Derivatives, P. Genresse, 580; Action of Phenyl Isocyanate and Isothiocyanate on Dibasic Acids, Elophie Bénéch, 580; Enantiotropy of Tin, iv., Dr. Ernst Cohen, 580; the Carburetted Water-gas Industry, Samuel Cutler, jun., 595; Heat of Formation of Hydrated and Anhydrous Strontium Dioxide, M. de Forcrand, 604; a New Method of Fractionating Rare Earths, Eugene Demarcay, 604; Monomercurammonium Iodide, Maurice François, 604; a Crystalline Selenide and Oxyseleide of Manganese, M. Fonze-Diacon, 604; Reducing Action of Calcium Carbide, M. Geelmuyden, 604; New Method for Preparation of Double Sulphates of Chromium, C. Pagel, 604; Electrolytic Estimation of Lead in Lead Sulphate and Chromate, C. Marie, 604; $\alpha\beta$ -trimethyl- β -oxadipic Acid, E. E. Blaise, 604; Action of Amyl Chloride on Calcium Carbide, P. Lefebvre, 604; Chemistry of Perfumes, Dr. W. H. Warren, 619; New Reactions of Formaldehyde, M. Henry, 621; Hydrolysis of Raffinose by *Penicillium glaucum*, M. Gillot, 621; Liquefaction of a Gas by Self-cooling, G. S. Newth, 627; the Decomposition of Lead Chlorate, W. H. Sodeau, 627; Salinigrin, H. A. D. Jowett, 627; Alkylation by means of Dry Silver Oxide and Alkyl Iodides, G. D. Lander, 627; Interaction of Mesityl Oxide and Ethyl Sodiomethylmalonate, A. W. Crossley, 627; New Micro-chemical Reaction of Palladium, MM. Pozzi-Escot and Conquet, 628; Agricultural Chemistry: Progress of Agricultural Chemistry, Prof. Maercker, 116; the Wheat Problem, Sir William Crookes, F.R.S., Sir R. Giffen, K.C.B., F.R.S., 169
- Chevalier (H.), Variation of Electrical Resistance of Metallic Wires, 311
- Chevrel (G.), Exercices d'Arithmétique, 314
- Cheyne (Rev. T. K.), Encyclopædia Biblica, 148
- Cheyne (Prof. W. Watson), a Manual of Surgical Treatment, 176
- Chicago Drainage Canal, the, 353
- Children, the Diseases of, G. Elder and J. S. Fowler, 5
- Chile, Temperate, a Progressive Spain, W. Anderson Smith, Dr. Hugh Robert Mill, 536

- China : Cina e Giappone, E. von Hesse Warteg, 513 ; Crab Ravages in China, Kumagusu Minakata, 491
- Chisholm (George G.), the Geography of Europe, 368
- Chree (Dr. C., F.R.S.), Vector Diagrams, 490
- Christiansen (C.), Origin of Frictional Electricity, 190
- Christison (Dr. J. Sanderson), Brain in Relation to Mind, 295
- Christmas Island, on the Relation of, to the Neighbouring Lands, C. W. Andrews, 19
- Chronologie des Temps préhistoriques, Essai de, M. Roisel, 514
- Chronometer, Microphonic Registration of Beat of, A. Berget, 71
- Chun (Prof.), Light-collecting Apparatus of Deep-sea Fish, 65
- Cidre, Le, X. Rocques, 342
- Cina e Giappone, E. von Hesse Warteg, 513
- Citteri (C.), Seconda Spedizione Bottego. L'omo. Viaggio d'Esplorazione nell'Africa Orientale, 75
- Clarke (F. W.), Action of Ammonium Chloride on Analcite and Leucite, 432
- Classified Dates, Cyclopaedia of, Charles E. Little, 513
- Clayden Effect, on the Cause of Dark Lightning and the, Prof. R. W. Wood, 104
- Claypole (Prof. E. W.), Californian Earthquake of December 25, 1899, 595
- Clayton (H. H.), Recent Exploration in Upper Air and its bearing on Theory of Cyclones, 611
- Clinch (George), Drift Gravels at West Wickham, 191
- Close Double Stars, Density of, 306
- Coal and Coal Mining, a Rudimentary Treatise on, Sir Warington W. Smyth, F.R.S., Bennett H. Brough, 411
- Coaling at Sea, the Problem of, 430
- Cobbold (Ralph P.), Innermost Asia, 495
- Coccidae of New Zealand, the, Prof. T. D. A. Cockerell, 367
- Coccophores and Rhabdospheres, George Murray, F.R.S., 54
- Cockerell (Prof. T. D. A.), the Coccidae of New Zealand, 367
- Cockle, the Common, J. Johnstone, 372
- Cockroaches, Australian Remedy for, 520
- Coffey (G.), on Irish Copper Celts, 43
- Cohen (Dr.), Physico-chemical Studies of Tin, 330 ; the Velocity Change of White into Grey Tin, 573 ; Enantiotropy of Tin, iv., 580
- Cohn (Alfred I.), Indicators and Test Papers, 269
- Cohn (Rudolf), Base obtained by Action of Hydrochloric Acid on Albumen, 65
- Cole (Prof. G. A. J.), Metamorphic Rocks in Tyrone and Donegal, 407
- Collins (Henry F.), the Metallurgy of Lead and Silver, 198
- Colour Chemistry : L'Industrie des Matières Colorantes Azoïques, George F. Jaubert, 53
- Colour of Flints, the, W. H. Wheeler, 106
- Colour of Horses for Service in Hot Countries, Captain M. H. Hayes, 445
- Colour in Nature : a Study in Biology, Marion J. Newbiggin, 217
- Colour in Woad, on the Blue, Dr. Charles B. Plowright, 331, 563
- Colour Physiology of *Hippolyte varians*, the, F. W. Keeble and F. W. Gamble, 552
- Colours, Floral, Experiments on the, P. Q. Keegan, 105
- Colours, Cause of Recent Sunset, Horace Darwin, 128
- Colson (Alb.), Reciprocal Displacement of Metals, 120 ; Volumetric Estimation of Hydrogen, 384
- Columbia, British, Fifteen Years' Sport and Life in the Hunting-grounds of Western America and, W. A. Baille-Grohman, 566
- Comets : Comet Giacobini (1899 e), 17, 41, 87, 114, 137 ; M. Perrotin, 47 ; Comet Giacobini (1900 a), 355, 402, 424 ; Holmes' Comet (1899 d), 17, 41, 62, 87, 114, 137 ; Holmes' Comet (1899 II.), 236 ; the Meteors of Biela's Comet, E. C. Willis, 78 ; W. F. Denning, 78 ; Refraction Effect of Comet Swift (1899 I.), Prof. C. D. Perrine, 87 ; Definitive Orbit of Comet 1897 III., Herr E. Wessel, 374 ; Comet 1899 V., 501, 521
- Compass, the Evox, 398
- Compensation in Weather, Alex. B. MacDowall, 295
- Computation of Occultations, the, 355
- Computation of Orbits of Spectroscopic Doubles, Dr. K. Schwarzschild, 521
- Commerce, Essais du, et de l'Industrie, L. Cuniasse and R. Zwilling, 176
- Concave Diffraction Grating, new Mode of Using, Dr. G. B. Rizzo, 501, 541
- Conference of German Men of Science at Munich, the, 62
- Coniferen, Ueber den Habitus der, Dr. A. H. Burt, 28
- Coninck (C. de), Allotropy of Benzophenone, 287
- Conquet (H. C.), New Micro-chemical Reaction of Palladium, 628
- Constantin (M.), a New Pathogenic Mucor, 192
- Contact Electricity, 332
- Contemporary Meteor-showers of the Leonid and Bielid Meteor-periods, Prof. A. S. Herschel, F.R.S., 222, 271
- Cook (Dr. F. A.), the Possibilities of Antarctic Exploration, 136 ; Geographical Results of Belgian Antarctic Expedition, 258
- Cook (S. R.), Escape of Gases from Planetary Atmospheres, 501
- Cooke (W. E.), Position of Perth Observatory, 114
- Cooper (A. J.), Elementary Practical Chemistry, 126
- Copper, the Production of Electrolytic, Charles H. Lees, 392
- Coppock (John B.), Volumetric Analysis, 317
- Corals : the Structure of Porites, H. M. Bernard, 213 ; Ancestry of Heliopora (Blue Coral), Prof. J. W. Gregory, 311, 555 ; Corals in the Pacific, A. Agassiz, 432
- Corbin (H. E.), Handbook of Physics and Chemistry, 221
- Corbino (Dr. O. Mc), Wehnelt's Interrupter, 328
- Cormack (W.), Camplytic and Isolauronic Acids, 505
- Corn, Indian, Kumagusu Minakata, 392, 515 ; W. F. Sinclair, 445
- Corney (Dr.), Edible Earth from Fiji, 484
- Cornish (Vaughan), on the Sand-dunes bordering the Delta of the Nile, dealing with the Ripples, Sand-dunes and Dune-tracts in turn, 20 ; on Desert Sand-dunes bordering the Nile Delta, 403
- Cornu (A.), Law of Diurnal Rotation of Optical Field of Siderostat and Heliostat, 459
- Corona, the Structure of the Inner, Prof. S. P. Langley, For. M.R.S., 443
- Corresponding Societies of the British Association, 115 ; Rev. J. R. R. Stebbing on the Living Subterranean Fauna of Great Britain and Ireland, 116
- Cory (C. B.), the Birds of Eastern North America—Water-Birds, 323
- Cosmosphere, Blackie's, 359
- Cotton (A.), Le Phénomène de Zeeman, 276
- Coues (Dr. Elliott), Obituary Notice of, 278
- Coulter (John), Plant Relations : a First Book of Botany, 442
- Coupin (Henri), Toxic Effects of Compounds of Alkaline Earths on Plants, 532
- Cousin (H.), Preparation of Tetra-chloro- and Tetra-bromo-orthoquinones, 167
- Cowper-Coles (S.), Some Recent Applications of Electro-metallurgy to Mechanical Engineering, 21 ; Improvements in Production of Electrolytic Copper, 371
- Coxwell (H. T.), Death and Obituary Notice of, 257
- Crab Ravages in China, Kumagusu Minakata, 491
- Cragin (Belle S.), Our Insect Friends and Foes : how to Collect, Preserve and Study them, 342
- Craniology, New Graphical System of, P. H. Eykman, 408
- Crawford (R. F.), Comparative Dietary of Great Britain, Belgium, France and Germany, 520
- Creation, the Witness of ; Nature Sketches from the Book of Job, M. Cordelia Leigh, 466
- Creighton (Charles), Microscopic Researches on Glycogen, Part ii., 586
- Crew (Henry), Elements of Physics, 27
- Crooke (W.), on the Primitive Rites of Disposal of the Dead, as Illustrated by Survivals in Modern India, 44
- Crookes (Sir William, K.C.B., F.R.S.), the Wheat Problem, 169
- Crommelin (Mr.), a Brilliant Fireball, 548
- Crompton (C.), the Fitting of the Cycle to its Rider, 87
- Crompton (R. E.), the Fitting of the Cycle to its Rider, 87, 391
- Crossley (A. W.), Constitution of Fatty Acids, ii., 190 ; Interaction of Mesityl Oxide and Ethyl Sodiomethylmalonate, 627
- Cruls (L.), Formula for Atmospheric Refraction, 621
- Crustacea : Crab Ravages in China, Kumagusu Minakata, 491
- Crystallography : New Three-circle Goniometer, G. H. F. Smith, 113 ; Darstellung der 32 Möglichen Krystallklassen, Prof. H. Baumhauer, 245 ; a Category of Crystalline Groups Escaping Optical Investigation, F. Wallerant, 312 ; Non-existence of Hexagonal System, F. Wallerant, 360 ; a Treatise on Crystallography, W. J. Lewis, Prof. H. A. Miers, F.R.S., 485 ; Tyndall's Ice Crystals, 890

- Cuniss (L.), *Essais du Commerce et de l'Industrie*, 176
 Cunningham (Henry), *Theory and Practice of Art Enamelling upon Metals*, 466
 Curie (P.), Action of Magnetic Field on Becquerel Rays, 287 ; Negative Electrification of Secondary Rays produced by means of Röntgen Rays, 604
 Curie (M. and Mme.), Radio-activity Induced by Becquerel Rays, 71 ; Chemical Effects of Becquerel Rays, 120 ; Electric Charge of Deivable Radium Rays, 483
 Curie (Mme. S.), Atomic Weight of Metals in Radio-active Barium Chloride, 96 ; Penetration of Becquerel Rays which are not Deviable in Magnetic Field, 287
 Current Papers, H. C. Russell, F.R.S., 167
 Curtel (Georges), Physiological Phenomena of Chlorosis in Vine, 628
 Curtis (R. H.), Diurnal Variation of Barometer in British Isles, 119
 Cutler (Samuel, jun.), the Carburetted Water-gas Industry, 595
 Cycle, the Fitting of the, to its Rider, R. E. Crompton, 87, 391 ; C. Crompton, 87 ; D. E. Hutchins, 368 ; Wm. H. Massey, 391
 Cyclones : Dynamics of Cyclones, John Aitken, F.R.S., 531 ; Recent Exploration in Upper Air and its Bearing on Theory of Cyclones, H. H. Clayton, 611
 Encyclopedia of Classified Dates, Charles E. Little, 513
 P Cygni, Spectrum of, Herr A. Belopolsky, 137
 V Cygni, Elliptic Elements of the Variable, Prof. N. C. Dunér, 574
 Cygnus, New Algol Variable in, 17
 Cygnus, New Variable in, 501
 Cyon (E. de), the Orientation of the "Homing" Pigeon, 596
 Cyprus Museum, a Catalogue of the, with a Chronicle of Excavations undertaken since the British Occupation, and Introductory Notes on Cypriote Archaeology, John L. Myres and Max Ohnefalsch-Richter, 195
 Cytology : Fixirung, Färbung, und Bau des Protoplasmas, *Kritische Untersuchungen ueber Technik und Theorie in der Neueren Zellforschung*, Dr. Alfred Fischer, Prof. J. B. Farmer, 385
 Dairy Chemistry : a Practical Handbook for Dairy Chemists and others having Control of Dairies, H. Droop Richmond, 176
 Dalby (Prof. W. E.), a Friction Dynamometer, 165
 Dale (Miss E.), on Intumescences of *Hibiscus vitifolius*, 68, 165
 Dallmeyer (Thomas R.), Telephotography, 315
 Dalrymple-Hay (H. H.), Method of Construction of Waterloo and City Railway, 85
 Dana (James Dwight), the Life of, Scientific Explorer, Mineralogist, Geologist, Zoologist, Professor in Yale University, Daniel C. Gilman, Prof. John W. Judd, C.B., F.R.S., 409
 Daniel (Lucien), Self-grafting of Monocotyledons, 24 ; Variations in Haricots under Grafting, 483
 Danilewsky's Dirigible Balloon, 372
 Darjeeling Landslips, the Cause of the, T. H. Holland, 127
 Dark Lightning Flashes, Dr. W. Ainslie Hollis, 7 ; Dr. William J. S. Lockyer, 7 ; on the Cause of Dark Lightning and the Clayden Effect, Prof. R. W. Wood, 104
 Darwin (Francis), Investigations on the Localisation of the Irritability in Geotropic Organs, 67 ; Experiments on Periodic Movement of Plants, 359
 Darwin (Horace), Cause of Recent Sunset Colours, 128
 Darwin (Major), Antarctic Exploration, 19
 Dates, Cyclopaedia of Classified, Charles E. Little, 513
 Davenport (C. B.), Statistical Methods, with special reference to Biological Variation, 149 ; Experimental Morphology, 218
 David (Prof. T. W. E.), Glaciated Pebbles in Lochinvar (N.S.W.) Permo-Carboniferous Coalfield, 167 ; Underground Temperature, 484 ; Edible Earth from Fiji, 484
 Davis (Prof. W. M.), Physical Geography, 266
 Davison (Dr. Charles), Note on Distances to which Explosions are felt and heard, 91 ; Earthquake-sounds, 329 ; British Earthquakes, 1893-9, 546
 Dawson (Dr. H. M.), the van 't Hoff Celebration at Rotterdam, 321
 Dawson (Sir J. William, LL.D., F.R.S.), Death and Obituary Notice of, 80
 Dawson (Maria), Nitragin and the Nodules of Leguminous Plants, 405
 Dawson (W. B.), Remarkable Secondary Tidal Undulations, 619
 Daylight Leonids, Supposed, W. F. Denning, 152
 Deacon (O. D.), Remarkable Hailstorm in Cape Colony, 594
 Deaf in America, Marriages of the, Edward Allen Fay, Dr. Macleod Gearsley, 97
 Dean (G.), Atomic Weight of Nitrogen, 119 ; Exact Atomic Weight of Nitrogen, 355
 Deane (H.), Suggestions for Diagrammatical Depiction of Seasons of Drought and Rainfall, 47
 Debierne (A.), Actinium Rays, 573, 580
 Deceptive Bibliographic Indications, F. A. Bather, 367
 Deep-sea Soundings, Atlantic, R. E. Peake and Sir John Murray, 286
 Deep-sea Soundings in the Pacific, Results of, Prof. Alexander Agassiz, 211
 Defacqz (E.), Biphosphide of Tungsten, 580
 Definitive Orbit of Comet 1897 III., Herr E. Wessell, 374
 Dehérain (P. P.), the Culture of White Lupins, 287 ; Culture of Blue Lupins, 435
 Delacroix (M.), the Antibes Carnation Disease, 95 ; a Caucasian Vine Disease, 383
 Delage (Yves), Merogenic Impregnation, 24 ; Experimental Study of Fertilisation, 551
 Delange (R.), Eugenol, Safral and Propylpyrocatechol, 483
 Delépine (Marcel), a Methylene Sulphate, 120 ; Heat of Combustion of some very Volatile Liquids, 627
 Deléziner (M.), Effect of Use of Triphase Currents in Radiography, 335
 Demarcay (Eug.), Spectrum of Radium, 71 ; a New Method of Fractionating Rare Earths, 604
 Demouyss (C.), the Culture of White Lupins, 287
 Demouyss (E.), Culture of Blue Lupins, 435
 Dendy (Prof. Arthur), a New Peripatus from New Zealand, 444
 Deniges (G.), Manganic Oxidation of Citric and Malic Acids, 287 ; New Colour Reaction of Tyrosine, 459
 Deniker (J.), the Races of Man : an Outline of Anthropology and Ethnography, 462
 Denning (W. F.), the Meteors of Biela's Comet, 78 ; the Leonids, 81 ; Supposed Daylight Leonids, 152 ; Mercury as a Naked Eye Object, 431
 Density of Close Double Stars, 306
 Derrien (E.), Solubility of Benzophenone, 508
 Descriptive General Chemistry, S. E. Tilman, 175
 Desert Sand-dunes Bordering the Nile Delta, on, Vaughan-Cornish, 20, 403
 Desrez (A.), Transformation of Fat into Glycogen in Organism, 555
 Deslandres (H.), Rapid Variations of Radial Velocity of δ -Orion, 407
 Dewar (Prof.), Experiments on the Influence of the Temperature of Liquid Hydrogen on the Germinative Power of Seeds, 67
 Dexter (Prof. Edwin Grant), the Effect of Weather on Every-day Life, 56 ; Drunkenness and the Weather, 365
 Dick (Dr. J. A.), the "Emerods" of the Bible Bubonic Plague, 501
 Dickson (H. N.), Observations of Temperature of Water and Air round the British Islands, 19 ; Temperature and Salinity of the Surface Water of the North Atlantic during 1896 and 1897, 19 ; Mean Temperature of Sea-surface round British Coasts and its Relation to Air-temperature, 399
 Dickson (Prof.), Proof of Galois Field of Order p^r for every integer r and prime number p , 554
 Dictionary of the English Language, Students' Edition of a Standard, James C. Fernald, 220
 Dictionary of the Lepcha Language, the, General G. B. Mainwaring, 442
 Dictionary, Muret-Sanders' Encyclopedic English-German and German-English, 610
 Dictionary, Who's Who, 1900, an Annual Biographical, 270
 Dictionnaire des Termes de Médecine, Français-Anglais, H. de Méric, 270
 Didier (Gaston), an Arsenide of Nickel, 580
 Diener (Dr. C.), Fundamental Structure-lines of Eastern Alps, 40
 Dieseldorf (Arthur), Iodine in New South Wales Copper Ores, 483
 Dietary, Comparative, of Great Britain, Belgium, France and Germany, R. F. Crawford, 520
 Difficulties of the Calendar, the Date of Easter, W. T. Lynn, 493
 Diffraction Grating, Concave, New Mode of Using, Dr. G. B. Rizzo, 501, 541

- Digestion, diminished Digestive Activity of Saliva in certain Diseases, Dr. W. G. A. Robertson, 531
- Diplodocus, a Skeleton of, H. F. Osborn, 534
- Directory, the Englishwoman's Year-book and, 270
- Disease, Atmospheric Electricity and, Dr. Schliep, Prof. John Perry, F.R.S., 471
- Disease, Insects as Carriers of, Dr. G. H. F. Nuttall, 153
- Diseases of Children, the, G. Elder and J. S. Fowler, 5
- Diseases, Liverpool School of Tropical, 342
- Distances to which Explosions are Felt and Heard, Note on, Dr. Charles Davison, 91
- Distant (Mr.), Mimicry, 235
- Distribution of Income, the, Prof. William Smart, Sir R. Giffen, F.R.S., 581
- Divers (E.), Ammonium Amidosulphite, 434; Products obtained by Heating Ammonia Sulphites, Chiosulphate and Trithiionate, 434; Colour of Alkali Nitrates, 434; Non-existence of Dihydroxyamine Derivatives of Potassium Nitrite, 505
- Divining Rod, the Theory of Water Finding by the, its History, Method, Utility and Practice, B. Tompkins, C. V. Boys, F.R.S., 1
- Dixon (Dr. H. H.), First Mitosis of Lilium Spore-mother Cells, 191
- Djierdjan (Herr), Pyrrol-aldehyde, 453
- Dobbin (Leonard), Arithmetical Exercises in Chemistry, 53
- Dollar (J. A. W.), Surgical Operating Table for the Horse, 588
- Dongier (R.), Polarised Light in Magnetic Field, 360
- Donnan (Dr. F. G.), Relative Effusion Rates of Argon, Helium, and other Gases, 457
- Donnelly (Major-General Sir J. F. D., K.C.B.), Testimonial to, 132
- Doolittle (Prof. Eric), Secular Perturbations of Venus, 41
- Dörge (O.), Soap-bubbles, 432
- Double Stars, Density of Close, 306
- Doumer (E.), Action of High-tension, High-frequency Currents on Tuberculosis, 459
- Dowker (G.), on the Sand-dunes between Deal and Sandwich, with remarks on the Flora of the District, 68
- Downing (Dr. A. M. W., F.R.S.), Next Week's Leonid Shower, 28
- Draco, New Variable Star in, Dr. T. D. Anderson, 374
- Dragon-flies, British, W. J. Lucas, 418
- Drainage Canal, the Chicago, 353
- Drainage, Mine, Stephen Michell, Prof. W. Galloway, 606
- Dreams of a Spirit-Seer, Illustrated by Dreams of Metaphysics, Immanuel Kant, 563
- Dreyer (Dr. J. L. E.), the Correspondence of Olbers and Gauss, 486
- Drummond (Andrew T.), a Canadian Lake of Subterranean Inflow, 128
- Drunkenness and the Weather, Prof. Edwin C. Dexter, 365; R. C. T. Evans, 469
- Drygalski (Prof. Erich von), German Antarctic Expedition, 318
- Duane (W.), Electrical Thermostat, 528
- Dublin Royal Society, 191, 435
- Duckworth (W. L. H.), Supernumerary Teeth, 482
- Duerden (Mr.), Sea Fisheries of Jamaica, 157; Recent Changes in Jamaican Fauna, 157
- Dufour (M.), Quartz Thermometers, 521, 531
- Dufton (Dr. Arthur), to Calculate a Simple Table of Logarithms, 415
- Duhem (Prof. P.), Traité Élémentaire de Mécanique Chimique fondée sur la Thermodynamique, 73
- Dulden (Dr.), Researches in Camphor Series, 64
- Dumesnil (E.), Estimation of Ammonia and Nitrogen, 459
- Dunér (Prof.), Elliptic Elements of the Variable Y Cygni, 574
- Dunstan (W. R.), Japaconitine, 119
- Dust, Electric Light Wires and, A. A. C. Swinton, 612
- Dutoit (Paul), Surface Tension of some Organic Liquids, 383
- Dwarf Land, in, and Cannibal Country. A Record of Travel and Discovery in Central Africa, A. B. Lloyd, 314
- Dyeing with Woad alone, on the Process of, Dr. Charles B. Plowright, 563
- Dymchurch Sea-wall and the Reclamation of the Romney Marshes, on the, Edward Case, 22
- Dynamics: Elementary Dynamics, W. M. Baker, 221; a First Book in Statics and Dynamics, Rev. J. R. Robinson, 365; Abhandlung der Dynamik D'Alembert, 390; Ueber die Mathematische Theorie der Electrodynamicischen Induction, 390
- Ricardo Felici, 390; Dynamics of Cyclones, John Aitken, F.R.S., 531
- Dynamite Explosions, Effects of Avigliana, Dr. M. Baratta, 451
- Dynamometer, a Friction, Prof. W. E. Dalby, 165
- Eaglehawk and Crow: a Study of the Australian Aborigines, including an Inquiry into their Origin and a Survey of Australian Languages, John Mathew, Prof. Alfred C. Haddon, F.R.S., 193
- Earl (Alfred), Elements of Natural Philosophy, 125
- Earth, Edible, from Fiji, Dr. Corney, F. B. Guthrie and Prof. T. W. E. David, 484
- Earth, Method of determining Mean Density of, Al. Gerschun, 192
- Earth-knowledge, First Steps in, being an Introduction to Physiography, J. A. Harrison, 317
- Earth-shine, 235
- Earth's Motion, the Relation between the Periodic Changes of Solar Activity and the, Dr. J. Halm, 445
- Earthquakes: Barisal Guns and, Prof. A. Issel, 60; Earthquake Sounds, Dr. C. Davison, 329; Earthquake in Tiflis, 256; at Smyrna, 302; in Venetia, 450
- Easter, the Date of, Difficulties of the Calendar, W. T. Lynn, 493
- Eber (H.), Glow-light Phenomena with High-frequency Alternate Currents, 93
- Echelon Film Gratings, Charles P. Butler, 275
- Eckhardt (Herr), the Preparation of Metallic Cesium, 61
- Eclipses: Partial Eclipse of the Moon, December 16, 158; the Wind during Eclipses of the Sun, John W. Evans, 200; A. L. Rotch, 589; the Approaching Total Eclipse of the Sun, 201; the Eclipse Expedition at Vizianagaram, Sir Norman Lockyer, K.C.B., F.R.S., 229, 249; Solar Eclipses in the Twentieth Century, M. Camille Flammarion, 548; Photometric Observations of Mercury during Solar Eclipses, Dr. G. Müller, 574
- Economic Science, Sir William Smart, Sir R. Giffen, F.R.S., 581
- Economy: the Price of Wheat at Haddington, 1627-1897, R. C. Mossman, 519
- Edgerley (M.), the Homogeneity of Tellurium, 402
- Edible Earth from Fiji, Dr. Corney, F. B. Guthrie and Prof. T. W. E. David, 484
- Edinburgh Mathematical Society, 166, 286, 435, 507
- Edinburgh Royal Society, 166, 238, 286, 359, 482, 531, 579
- Edmed (F. G.), Action of Dilute Nitric Acid on Oleic and Elaidic Acids, 94
- Edser (Edwin), Heat for Advanced Students, 557
- Education: the New Education, Manual Training: Woodwork, Richard Wake, 53; Rural Education: John C. Medd, 55; Prof. R. Meldola, F.R.S., 55; C. H. Bothamley, 55; Nature Study in Rural Schools, 553; the Utility of Knowledge-making as a Means of Liberal Training, Prof. J. G. Macgregor, 159; G. H. Wyatt, 274; the South-western Polytechnic, A. T. Simmons, 208; Science Teachers in Conference, 283; American Higher Technical Education, Prof. F. W. Burstall, 299; Agricultural Education, 332; Technical Instruction in Relation to Industrial Progress, Prof. W. Ripper, 356; Elementary Chemistry for High Schools and Academies, Albert L. Arey, 442; School Gardens, G. B. Smith, 455
- Effect of Weather on Every-day Life, the, Edwin Grant Dexter, 56
- Egleston (Prof. Thomas), Death of, 370
- Egyptology: Recent Anthropometrical Work in Egypt, D. MacIver, 43; Flint Implements, &c., from Egypt, Prof. Flinders Petrie, 95; Books on Egypt and Chaldea. Egyptian Ideas of the Future Life; Egyptian Magic, E. A. Wallis Budge, Frank Rede Fowke, 437
- Einführung in die Chemie in leichtfasslicher Form, Prof. Dr. Lassar-Cohn, 51
- Einthoven (Prof. W.), Theory of Capillary Electrometer, 72
- Ekenstein (W. A. van), *d*-Sorbinose and *L*-Sorbinose, 216
- Elder (G.), the Diseases of Children, 5
- Election, the London University, 299, 324, 369; Rev. Dr. A. Irving, 318
- Electricity: Analyses Électrolytiques, Ad. Minet, 5; Mr. Cooper-Coles on Some Recent Applications of Electro-metallurgy to Mechanical Engineering, 21; Model illus-

- trating Flow-actions of Current, Mr. Addenbrooke, 23; Experiments with Lecher's Wehnelt Interrupter, W. Watson, 23; Wehnelt's Interrupter, E. Rothé, 48; Dr. R. Federico, P. Bacei and O. M. Corbino, 328; the Various Patterns of Wehnelt Interrupter, Alfred Turpaine, 407; Electrolytic Interrupter for Feeble Currents, A. von Rzewuski, 627; Death by the Electric Discharge, J. L. Prevost and F. Battelli, 24; Transmission of Hertzian Waves through Liquids, Edouard Branly, 47; Electrical Motive Power in Docks, Harbours and Canals, 60; the Course of Electrolytic Reduction, J. Tafel, 63; Contact Electricity, F. S. Spiers, 70; Theory of Capillary Electrometer, Prof. W. Einthoven, 72; the Niagara Power Station, 85; Electrical Equipment of Waterloo and City Railway, B. M. Jenkins, 85; Glow-light Phenomena with High-frequency Alternate Currents, H. Ebert, 93; Electric Pictures, L. Fomm, 93; the Macfarlane-Moore Vacuum Tube, J. Elster and H. Geitel, 93; Electrolytic Preparation of Induline Dyes, E. Szarvassy, 94; Conductivity of Gas near Incandescent Wire, J. A. McClelland, 95; Magnetism and Electricity, J. Paley Yorke, 102; on the Cause of Dark Lightning and the Clayden Effect, Prof. R. W. Wood, 104; Electro-magnets in Steel Works, 135; the Diurnal Variations of Atmospheric Electricity, A. B. Chauveau, 136; Electrical Thawing of Water Service Pipes, 156; Influence of Röntgen Rays on Resistance of Selenium, M. Perreau, 167; Negative Electrification of Secondary Rays produced by means of Röntgen Rays, P. Curie and G. Sagnac, 604; Marconi Wireless Telegraphy in U.S.A., 185; a History of Wireless Telegraphy, J. J. Fahie, 243; La Télégraphie sans Fil, André Broca, 243; Wireless Telegraphy between Chamounix and Mt. Blanc, Léon and Louis Lecarre, 280; Wireless Telegraphy in the War, 350; Use of new Radio-conductors for Wireless Telegraphy, C. Tissot, 579; Moving Bodies in Electric Field, A. Heydweiller, 190; Ratio of Electric Charge to Mass in Kathode Particles, S. Simon, 190; Origin of Frictional Electricity, C. Christiansen, 190; Influence of Becquerel Rays on Electric Sparks, J. Elster and H. Geitel, 190; Behaviour of Brush Discharge in Magnetic Field, M. Toepler, 190; Magnetism and Electricity for Beginners, H. E. Hadley, 200; Electrolytic Processes in Industry, Dr. W. Borchers, 206; Effects of Discharges on Heart of Mammals, J. L. Prevost and F. Battelli, 239; Constitution of Electric Spark, G. A. Hemsalech and Prof. Schuster, 258; Magnetic Deflection of Kathode Rays, E. Wiechert, 262; on the Carriers in the Kathode Rays, W. B. Morton, 365; Relation between Electric Conductivity and Pressure, G. Tammann, 262; a Fallacy in Electrical Pressure, E. Lecher, 262; Distribution of Free Electricity at Surface of a Crookes' Tube, E. Riecke, 262; Photography of Current Curves, J. Zenneck, 262; Recherches Expérimentales sur les Oscillations Électriques, A. Turpaine, 263; Thermo-electric Properties of Mercury, Dr. W. Peddie and A. B. Shand, 286; Death of Prof. D. E. Hughes, F.R.S., 302; Obituary Notice of, 325; new Formula for Ostwald's Dilution Law, Dr. W. D. Bancroft, 303; Discharge of Electrified Bodies and Ozone Formation, P. Villard, 311; Variation of Resistance of Metallic Wires, H. Chevallier, 311; Hall Phenomenon and Thermomagnetic Currents, G. Moureau, 311; Contact Electricity, 332; Use of Price's Guard Wire in Insulator Tests, Prof. Ayrton and Mr. Mather, 334; Fault-test for Cable-cores, Mr. Appleby, 334; Reflection and Transmission of Electric Waves along Wires, Dr. E. Barton and L. Lownds, 334; Electrolysis of Nitrogen Hydrides and Hydroxylamine, E. C. Szarvassy, 335; Measurement of Capacity in Heterogeneous Medium, A. A. Petrovsky, 335; the Effects of Lightning upon Electric Lamps, Sydney Webb, 343; Sir G. G. Stokes, Bart., F.R.S., 343, 413, 539; Prof. R. W. Wood, 391; Time of Establishing Electric Spark, H. Abraham and J. Lemoine, 366; Improvements in Production of Electrolytic Copper, S. Cowper-Coles, 371; the Production of Electrolytic Copper, Charles H. Lees, 392; the Controversy on Volta's Contact Force, Prof. Oliver Lodge, 382; Stratifications, H. Pellan, 383; Abhandlung der Dynamik, D'Alembert, 390; Ueber die Mathematische Theorie der Electrodynamicischen Induction, Ricardo Felici, 390; an Aluminium Cable, 399; a Mercury Jet Interrupter, 421; S. M. Kintner, 590; Atmospheric Electricity, J. Elster and H. Geitel, 422; John Aitken, F.R.S., 514; Atmospheric Electricity and Disease, Dr. Schliep, Prof. John Perry, 514; Exner's Theory of Atmospheric Electricity, Prof. G. Schwalbe, 546, 554; Advancement of Electrical Chemistry, Dr. F. Mollwo Perkin, 428; Electric Conductivity of Dilute Amalgams, A. Larsen, 432; Stationary Temperature of Electrically Heated Conductor, F. Kohlrausch, 432; Spark Potential in Gases, A. Orgler, 432; the Reversibility of Galvanic Cells, T. S. Moore, 458; Ionisation of Gases in Electric Field, Prof. J. Thomson, 458; Action of High-tension High-frequency Currents on Tuberculosis, E. Doumer, 459; Damping of Galvanometer Needles, M. Solomon, 481; Gas-distribution in Electric Field, G. W. Walker, 481; Effects of Strain on Thermoelectric Qualities of Metals, Prof. M. Maclean, 481; Electrical Thermostat, Prof. J. Gibson and A. W. C. Menzies, 482; W. Duane and C. A. Lory, 528; Cadmium Cell as Standard of Electromotive Force, Dr. John Henderson, 483; Electric Charge of Deviable Radium Rays, M. and Mme. Curie, 483; Negative Charge communicated by Radium Rays, Henri Becquerel, 498; Deviation of Radium Rays in Electric Field, Henri Becquerel, 555; Ionisation of Dilute Solution at Freezing-point, W. C. D. Whetham, 504; Experimental Study of Hertz Exciter, R. Swyngeaud, 507; Production of Nitric Acid from Air by Electric Flame, A. McDougall and F. Howles, 507; Electrolysis of Potassium Chloride, H. A. Brochet, 508; Syntony, P. E. Shaw, 529; Electrical Micrometer, P. E. Shaw, 529; Relations between Electrolytic Conductivity and Internal Friction of Saline Solutions, P. Massoulier, 531; Unités Électriques absolues, Prof. G. Lippmann, 539; Electricity in War, Prof. John Perry, F.R.S., 541; Dielectric Constants of Liquid Nitrous Oxide and Nitrogen, Dr. Fritz Hasenoehrl, 547; a Vacuum Electroscope, H. Pfau, 554; Discharge of Static Electricity from Points, H. Sieveking, 554; Electrostatic Effects in connection with Vacuum Discharges, J. Stark, 555; Electric Wiring, Fittings, Switches and Lamps, W. Perren Maycock, 562; Electric Bells and Alarms, F. E. Powell, 562; Influence of Heating on passage of Electricity through Rarefied Gases, J. Stark, 572; Viscosity of Dielectric Liquids unaffected by Uniform Electrostatic Field, Drs. G. Pacher and L. Finazzi, 572; the Jungfrau Railway, 572; Velocity of Propagation of Electromagnetic Waves in Bitumen, C. Gutton, 579; Influence of Iron on Discharge of Condenser through Induction Coil, G. A. Hemsalech, 579; the Elements of Alternating Currents, W. S. Franklin and R. B. Williamson, 587; the Action of Electric Tramways on Land End of Submarine Cables, Prof. Andrew Jamieson, 595; Electro-culture, V. A. Tyurin, 602; Electrolytic Estimation of Lead in Lead Sulphates and Chromates, C. Marie, 604; Electric Light Wires and Dust, A. A. C. Swinton, 612; Iron Smelting by Electricity, 618; the Relations between Engineering and Electricity, Sir W. H. Preece, F.R.S., 622; Application of Radio-micrometer to Measurements of Short Electric Waves, G. W. Pierce, 626; Wave Current Generators, C. Heinke, 626; Absorption of Light in Electrically Glowing Gases, M. Cantor, 626; Analysis of Oscillating Discharges by means of Braun Tube, F. Richarz and W. Ziegler, 627; Mixture of Three Powders for Producing Electric Dust-figures, K. Bürker, 627; Quincke's Rotations in Electric Field, L. Graetz, 627; Apparatus for Decorating Front of Electricity Section of Paris Exhibition, M. d'Arsonval, 628; Increases of Resistance in Radioconductors, Edouard Branly, 628; Elementary Practical Mathematics, Frank Castle, 53; Elements of Physics, Henry Crew, Prof. Arthur Schuster, F.R.S., 27; Elliott (W. J.), Action of Chloroform and Potassium Hydroxide on Orthoamidobenzoic Acid, 264; Elliptic Elements of the Variable Y Cygni, Prof. N. C. Dunér, 574; Elster, (J.), the Macfarlane-Moore Vacuum Tube, 93; Influence of Becquerel Rays on Electric Sparks, 190; Atmospheric Electricity, 422; Elwes (H. J., F.R.S.), Illustrations of Lepidoptera, 468; Bulgarian Lepidoptera, 627; Embryology: Merogenic Impregnation, Yves Delage, 24; the Development of Ganglion Cells and Nerves, N. Gorowitsch, 158; Embryology of Marsupials, J. P. Hill, 400; Die Elemente der Entwicklungsllehre des Menschen und der Wirbeltiere, O. Hertwig, 610; Emden (R.), Resistance to Projectiles in Air, 93

- "Emerods," the, of the Bible Bubonic Plague, Drs. F. Fidswell and J. A. Dick, 501
- Emerson (Prof. B. K.), Geology of Old Hampshire County, Mass., 601
- Empires, the Passing of the, G. Maspero, 361
- Enamelling, Art, Theory and Practice of upon Metals, Henry Cunynghame, 466
- Encyclopædia Biblica, Rev. T. K. Cheyne, 148
- Energy of the Becquerel Rays, Suggested Source of the, Dr. Fred T. Trouton, F.R.S., 443
- Engineering: the Incrustation of Iron Water Pipes, W. Ingham, 14; Institution of Mechanical Engineers, 14; Messrs. Goode and Matthews on the Admiralty Harbour Works at Dover, 20; Sir Charles Hartley on the Engineering Works of the Suez Canal, 21; M. Alby on the Construction and Erection of the Alexander III. Bridge over the Seine in Paris, 21; Mr. Cowper-Coles on some recent Applications of Electro-metallurgy to Mechanical Engineering, 21; Institution of Civil Engineers, 41; Engineering Progress and Problems, Sir Douglas Fox, 41; Elements of Precise Surveying and Geodesy, Prof. Mansfield Merriman, Sir C. W. Wilson, K.C.B., F.R.S., 77; Death of Alexander McDougall, 84; Method of Construction of Waterloo and City Railway, H. H. Dalrymple-Hay, 85; Electrical Equipment of Waterloo and City Railway, B. M. Jenkins, 85; the Fitting of the Cycle to its Rider, R. E. Crompton, 87, 391; C. Crompton, 87; D. E. Hutchins, 368; W. H. Massey, 391; the Steam Engine and Gas and Oil Engines, Prof. John Perry, F.R.S., 100; the Resistance of the Air, 248; Prof. G. H. Bryan, F.R.S., 107, 248; Pontoon-based Swing Bridges at Northwich, 135, 327; Valve Motions of Engines, Prof. John Perry, F.R.S., 152; Refuse-destruction and Steam-raising, C. N. Russell, 185; Engineering at Cambridge, 346; the Functions of the Engineer, Sir William Henry Preece, K.C.B., F.R.S., 374; Motive Power, Steam Turbines, High Speed Navigation, Hon. C. A. Parsons, F.R.S., 424; the Problem of Coaling at Sea, 430; Mining Engineers' Report Book and Directors' and Shareholders' Guide to Mining Reports, Edwin R. Field, 489; Death and Obituary Notice of Samson Jordan, 544; the Jungfrau Electric Railway, 572; Development of Manufacture and Use of Rails in Great Britain, Sir J. L. Bell, F.R.S., 595; Wear of Steel Rails in Tunnels, Thomas Andrews, F.R.S., 595; Mine Drainage, Stephen Michell, Prof. W. Galloway, 606; the Relations between Electricity and Engineering, Sir W. H. Preece, F.R.S., 622
- English (Douglas), Photography of Live Fish, 451
- English Language: the Standard Intermediate School Dictionary of the, James C. Fernald, 220; Students' Edition of a Standard Dictionary of the, James C. Fernald, 220
- English Station for Botanical Research in the Tropics (Ceylon), John C. Willis, 32
- Englishwoman's Year-book and Directory, the, 270
- Enlistment, Racial Aspect of Voluntary, R. C. T. Evans, 200
- Entomology: Entomological Society, 46, 94, 165, 191, 335, 406, 500, 577, 627; the Cambridge Natural History, David Sharp, W. F. Blandford, 49; Birds Capturing Butterflies, F. Finn, 55; Oswald H. Latter, 56; Howard Fox, 152; George A. Soper, 491; Butterfly-Shadows, Commander D. Wilson-Barker, 128; Can Ants Hear? Mr. Weld, 157; Shadows of Insects, Wm. Parkinson, 177; General Index by Robert Newstead, F.E.S., Curator of the Grosvenor Museum, Chester, to Annual Reports of Observations of Injurious Insects, 1877-1898, Eleanor A. Ormerod, 126; Proceedings of the Eleventh Annual Meeting of the Association of Economic Entomologists, 221; Collops Beetle feeding on Larva of Colorado Potato Beetle, 328; Our Insect Friends and Foes: how to Collect, Preserve, and Study them, Belle S. Cragin, 342; the Coccidae of New Zealand, Prof. T. D. A. Cockerell, 367; Stridulating Beetles, Mr. Gahan, 406; British Dragonflies, W. J. Lucas, 418; Illustrations of Lepidoptera, H. J. Elwes, F.R.S., 468; a New Attid Spider, *Mantidatta tricidans*, C. Warburton, 579; the Locust Plague in New South Wales, W. W. Froggart, 620; Bulgarian Lepidoptera, H. J. Elwes, 627
- Entropy of Radiation, J. Van der Waals, jun., 407
- Ephemrides, Time used in, 374
- Epilepsy, Effect of Diet poor in Chlorides upon the Treatment by Sodium Bromide of, Ch. Richet and E. Toulouse, 120
- Equation-solving Machine, Georges Meslin, 579
- Équilibre des Systèmes Chimiques, J. Willard Gibbs, 390
- Equilibrium; a Simple Proof of Gibbs' Phase Rule, Prof. Kuenen, 359
- Equilibrium of Vessel carrying Liquid, M. Appell, 24
- Erde, die hochgebirge der, Robert von Lendenfeld, Prof. T. G. Bonney, F.R.S., 219
- Erdmann (Prof. Dr. H.), Anleitung zur Darstellung chemischer Präparate. Ein Leitfaden für den praktischen Unterricht in der Anorganischen Chemie, 246
- Eros, Orbit of, 236
- Erythrean Rift Valley, the Continuity of the, L. Vannutelli and C. Citterni, 75
- Escape of Gases from Planetary Atmospheres, S. R. Cook, 501; Dr. G. Johnstone Stoney, F.R.S., 515
- Essai Critique sur l'Hypothèse des Atomes dans la Science Contemporaine, Arthur Hannequin, 26
- Essais du Commerce et de l'Industrie, L. Cuniasse and R. Zwilling, 176
- Essex Naturalist, the: the Journal of the Essex Field Club, 245
- Esteicher (Dr. T.), Solubility of Argon and Helium in Water, 260
- Etard (A.), Oxidation by Ferricyanides, 459
- Ether, Attempt to Reconcile apparently Opposite Mechanical Properties of the, Lord Kelvin, 166
- Etheridge (R., jun.), *Blechnoxylon*, 303
- Ethnography: On Recent and most Excellent Ethnographical Work in East Aberdeenshire, J. Gray, 43; Ethnographic Survey of Canada, 45; Ethnographical Museums, 154; Eaglehawk and Crow: a Study of the Australian Aborigines, including an Inquiry into their Origin and a Survey of Australian Languages, John Mathew, Prof. Alfred C. Haddon, F.R.S., 193; the Races of Man: an Outline of Anthropology and Ethnography, J. Deniker, Prof. A. C. Haddon, F.R.S., 462; Ethnography of Solomon Islands, R. Parkinson, 546
- Etna, the Eruption of July 19, 1899, 185
- Êtres Vivants, les, Paul Busquet, 609
- Etruscan Numerals, the, E. E. Lattes, 371
- Euclid, Books I.-II., Charles Smith and Sophie Bryant, 102
- Euclid, the Elements of, R. Lachlan, 176
- Euclid's Elements of Geometry, Charles Smith and Sophie Bryant, 365
- Eudesmol, H. G. Smith, 47
- Europe, the Geography of, Geo. G. Chisholm, Dr. Hugh Robert Mill, 368
- European Fauna, the History of, Dr. R. F. Scharff, 341
- Evans (A. J.), on the Occurrence of "Celtic" Types of Fibula of the Hallstatt and La Tène Periods in Tunisia and Eastern Algeria, 43
- Evans (John W.), the Wind during Eclipses of the Sun, 200
- Evans (R. C. T.), Racial Aspect of Voluntary Enlistment, 200; Floating Stones, 318; Drunkenness and the Weather, 469
- Evermann (Barton Warren), the Fishes of North and Middle America: a Descriptive Catalogue of the Species of Fish-like Vertebrates found in the Waters of North America, North of the Isthmus of Panama, 362
- Evolution: Marriages of the Deaf in America, Edward Allen Fay, Dr. Macleod Gearsley, 97; the Methods of Inorganic Evolution, Sir Norman Lockyer, K.C.B., F.R.S., 129, 296; Evolution of General Ideas, Prof. Th. Ribot, 149; some Recently-discovered Silurian Fish Remains, a Link in the Chain of Organic Evolution, R. H. Traquair, F.R.S., 307; a First Book in Organic Evolution, Dr. D. Kerfoot Shute, 488; the Evolution of Geography, a Sketch of the Rise and Progress of Geographical Knowledge from the Earliest Times to the First Circumnavigation of the Globe, John Keane, 317; Mathematical Contributions to Theory of Evolution, viii, Karl Pearson, 505; Death of Prof. St. George Mivart, 544; Obituary Notice of, 569; les Êtres Vivants, Paul Busquet, 609
- Evoi Compass, the, 308
- Ewing (Prof. J. A., F.R.S.), the Strength of Materials, 197
- Exercise and Respiration, Dr. A. Foxwell, 39
- Exercises in Practical Physics, R. A. Gregory and A. T. Simmons, 390
- Exner's Theory of Atmospheric Electricity, Prof. G. Schwalbe, 546, 554
- Experimental Physik, Lehrbuch der, Adolph Wüllner, 221
- Experimenting, History of the Art of, Dr. E. Gerland and Dr. F. Traumüller, 4
- Experiments on Animals, Stephen Paget, 512

- Exploration of the Sea, Stockholm International Conference on the, 34 ; E. J. Allen, 54, 227, 275 ; Prof. W. A. Herdman, F.R.S., 78, 177 ; Geo. Murray, F.R.S., 102 ; H. M. Kyle, 151 ; Prof. Otto Petterson, 413
- Explosions, Note on Distances to which Explosions are Felt and Heard, Dr. Charles Davison, 91
- Explosions in Air, W. Wolff, 93
- Explosives, Modern, J. S. S. Brame, 548
- Ek (Herr van), Physico-chemical Studies of Tin, 330
- Ekman (P. H.), New Graphical System of Craniology, 408
- Fabry (Ch.), Mass of Cubic Decimetre of Water, 71 ; New Source of Light for Spectrometry of Precision, 407 ; Constitution of Yellow Sodium Rays, 483
- Fahie (J. J.), a History of Wireless Telegraphy, 243
- Faith, Science and, or Man as an Animal, and Man as a Member of Society : with a Discussion of Animal Societies, Dr. Paul Topinard, 270
- Faraday and Schönbein, the Letters of, 1836-1862 ; with Notes, Comments, and References to Contemporary Letters, Prof. R. Meldola, F.R.S., 337
- Farmer (Prof. J. Bretland), A Practical Introduction to the Study of Botany : Flowering Plants, 150 ; a New Departure in Cytology, Dr. Alfred Fischer, 385
- Farms, Australian Experimental, 528
- Farquhar (H.), the New Zealand Zoological Region, 246
- Farquharson (Col. Sir John), Progress of the Work of the Ordnance Survey during the Last Twelve Years, 20
- Fassig (O. L.), March Weather in United States, 93
- Fatigati (Dr. E. S.), Natural Objects in Old Spanish Sculpture, 15
- Faulty Rum, the Micro-organism of, V. H. Veley, F.R.S., and Lilian J. Veley, 468
- Fauna, Dr. W. Kobelt and the Mediterranean, Prof. Henry H. Giglioli, 227 ; the Reviewer, 227
- Fauna, the History of European, Dr. R. F. Scharff, 341
- Fay (Edward Allen), Marriages of the Deaf in America, 97
- Fay (Mr.), the Homogeneity of Tellurium, 402
- Feather-stars, the, of the Bahamas, Prof. Verrell, 16
- Federico (Dr. R.), Wehnelt's Interrupter, 328
- Felici (Ricardo), Ueber die Mathematische Theorie der Electro-dynamische Induction, 390
- Fenton (H. J. H.), Oxalacetic Acid, 190 ; Researches in Sugar Group, 215
- Fernald (James C.), Students' Edition of a Standard Dictionary of the English Language, 220 ; the Standard Intermediate School Dictionary of the English Language, 220
- Fernen Ostens, Die Orkane des, Dr. Paul Bergholt, 317
- Ferns ; How to Know the True Ferns, Frances Theodora Parsons, 412 ; *Asplenium Bradleyi*, R. M. Middleton, 458
- Fertilisation, Experimental Study of, Prof. Yves Delage, 551
- Fertilisation of Flowers in New Zealand, Geo. M. Thomson, 564
- Field (Edwin R.), Mining Engineers' Report Book, and Directors' and Shareholders' Guide to Mining Reports, 489
- Field and Folklore, Harry Lowerison, 102
- Fifth Satellite of Jupiter, Orbit of, Prof. E. E. Barnard, 157
- Fiji, Edible Earth from, Dr. Corney, F. B. Guthrie and Prof. T. W. E. David, 484
- Fiji, Evidence of Upheaval in Vanua Levu, Dr. H. B. Guppy, 248
- Film Gratings, Echelon, Charles P. Butler, 275
- Filon (L. N. G.), Resistance of certain forms of Shafting to Torsion and Effect of Keyways thereon, 93
- Finazzi (Dr. L.), Viscosity of Dielectric Liquids unaffected by Uniform Electrostatic Field, 572
- Finger-prints as a Method for the Identification of Criminals, E. R. Henry, 42
- Finland, Archean Rocks of, J. J. Sederholm, 373
- Finn (F.), Birds Capturing Butterflies, 55
- Fireball, a Brilliant, Mr. Crommelin, 548
- First Steps in Earth-knowledge ; being an Introduction to Physiography, J. A. Harrison, 317
- Fischer (Dr. Alfred), Fixierung, Färbung, und Bau des Protoplasmas, Kritische Untersuchungen ueber Technik und Theorie in der Neueren Zellforschung, 385
- Fischer (Prof. Emil), Stereo-chemistry and Physiology, 140 ; Recent Researches on Uric Acid, 187
- Fisheries : the Stockholm International Fisheries Conference, 34 ; E. J. Allen, 54, 227, 275 ; Prof. W. A. Herdman, F.R.S., 78, 177 ; George Murray, F.R.S., 102 ; H. M. Kyle, 151 ; Prof. Otto Petterson, 413
- Fishes : a Descriptive Catalogue of the Indian Deep-sea Fishes in the Indian Museum, 291 ; an Account of the Deep-sea Brachyura : being Systematic Reports upon the Materials Collected by the Royal Indian Marine Survey Ship *Investigator*, 1874-1899, A. Alcock, 291 ; the Fishes of North and Middle America : a Descriptive Catalogue of the Species of Fish-like Vertebrates Found in the Waters of North America, North of the Isthmus of Panama, David Starr Jordan and Barton Warren Evermann, 362
- Fiske (John), a Century of Science and other Essays, 390
- Fitting of the Cycle to its Rider, R. E. Crompton, 87, 391 ; C. Crompton, 87 ; D. E. Hutchins, 368 ; W. H. Massey, 391
- Fitzgerald (Prof. G. F., F.R.S.), Size at which Heat-movements are Manifested in Matter, 612
- Fitz-Patrick (J.), Exercices d'Arithmétique, 314
- Flammarion (Camille), Solar Eclipses in the Twentieth Century, 548
- Flightless Rail, the, of New Zealand, Prof. W. B. Benham, 576
- Flinders Petrie (Prof. W. M.), on Sequences of Prehistoric Remains, 43 ; on Early Mediterranean Signaries and the Sources of the Alphabet, 44 ; Flint Implements from Egypt, 95
- Flint Implements from Egypt, Prof. W. M. Flinders Petrie, 95
- Flint Implements from Nile Valley, Dr. H. O. Forbes, 597
- Flints, the Colour of, W. H. Wheeler, 106
- Flints, Pigmy, in Yorkshire, R. A. Gatty, 282
- Floating Sand, F. W. Simonds, 500
- Floating Stones, Dr. Erland Nordenskiold, 278 ; Cecil Carus-Wilson, 318 ; R. C. T. Evans, 318 ; Prof. A. W. Brightmore, 346
- Floods, Recent, in England, 398
- Flora of Kent, F. J. Hanbury and E. S. Marshall, 489
- Flora of New Zealand and the Outlying Islands, the Student's, Thomas Kirk, W. Botting Hemsley, F.R.S., 146
- Floral Colours, Experiments on the, P. Q. Keegan, 105
- Flowerland, Sylvia in, Linda Gardiner, 102
- Flowers, Fertilisation of, in New Zealand, Geo. M. Thomson, 564
- Flux (Prof. A. W.), Internal Migration in England and Wales, 383
- Folklore : Field and Folklore, Harry Lowerison, 102 ; Catalogue of a Collection of Objects illustrating the Folklore of Mexico, Prof. Frederick Starr, 488
- Fomme (L.), Electric Pictures, 93
- Fonzes-Diacon (M.), Hexagonal Form of Selenide of Zinc, 556 ; a Crystalline Selenide and Oxyselelenide of Maganese, 604
- Food : Comparative Dietary of Great Britain, Belgium, France and Germany, R. F. Crawford, 520
- Food-preserving Methods, Dr. S. Rideal, 519
- Foote (W. M.), a New Meteoric Iron, 190
- Forbes (Dr. Henry O.), the Rostrum of *Mesoplodon*, 490 ; Flint Implements from the Nile Valley, 597
- Forcrand (M. de), Action of Hydrogen Peroxide on Baryta, 508 ; Heat of Formation of Hydrated and Anhydrous Strontium Dioxide, 604
- Forestry : Botany and the Indian Forest Department, Prof. W. Schlich, 6 ; the Indian Forest Service, W. F. Sinclair, 31 ; Indian Forest Insect-pests, E. P. Stebbing, 38 ; Ueber den Habitus der Coniferen, Dr. A. H. Burt, 28 ; Forest Fires and Insects, Dr. A. D. Hopkins, 327
- Formalin as a Preservative, 204
- Formalin as a Preventive of Silkworm Disease, Prof. G. Gianole and Dr. E. Zappa, 520
- Forster (M. O.), Camphoroxime, 94 ; Nitrocamphane, 405
- Fosse (R.), Acetals of Phenols, 508
- Fossil Remains of Lake Callabonna, 275
- Foster (Prof. Le N.), Mineral Industries of the World, 594
- Foster (Sir Michael, K.C.B., M.P.) and his Pupils, 497
- Fowle (C. E.), a Compound Prism of Uniform Dispersion, 597
- Fowler (J. S.), the Diseases of Children, 5
- Fox (Sir Douglas), Engineering Progress and Problems, 41
- Fox (Howard), Halo round a Shadow, 7 ; Birds Capturing Butterflies, 152
- Foxwell (Dr. A.), Exercise and Respiration, 39
- France, Bulletin de la Société Astronomique de, 577

- François (Maurice), Dissociation of Potassium and Ammonium Iodomercurates by Water, 167 ; Action of Strong Ammonia Solution on Iodide of Mercuridiammonium, 384 ; Monomer-curammonium Iodide, 604
- Frankenfeld (H. C.), Kite Observations of 1898, 371
- Franklin (W. S.), the Elements of Alternating Currents, 587
- Fraps (Dr.), no Isomerism in Sodium Potassium Sulphite, 547
- Fraser (D. H.), Supernumerary Teeth, 482
- Freeman (W. G.), on the *Anabaena*-containing Roots of some Cycads, 66
- French (C. H.), Elementary Algebra, 200
- French (William), Practical Chemistry, 514
- Frenkel (H.), Concerning Physiological Alternation of Kidneys, 483
- Friderich (Louis), Surface Tension of some Organic Liquids, 383
- Frißlat (A.), Transformation of Negative Photographic Image into Lamellar State, and Colour Phenomena resulting therefrom, 335
- Frobenius (L.), Primitive Mathematics, 259
- Froggatt (W. W.), the Locust Plague in New South Wales, 620
- Frost (Prof. E. B.), Spectroscopic Binary Stars, a *Ursæ Minoris*, 114
- Functions, the, of the Engineer, Sir William Henry Preece, K.C.B., F.R.S., 374
- Fungi : the North American Slime Moulds, Prof. T. H. MacBride, 173
- Furnace, New Gas, Armand Gautier, 478
- Gage (G. A.), Magnetic Qualities of Building Brick, 421
- Gahan (Mr.), Stridulating Beetles, 406
- Gallard (F.), Absorption of Iodides by Human Skin, 556
- Galloway (Prof. W.), Mine Drainage, Stephen Michell, 606
- Galt (Dr. A.), Heat of Combination of Metals in Alloy-formation, 579
- Galton (Dr. Francis, F.R.S.), a Geometric Determination of the Median Value of a System of Normal Variants, from two of its Centiles, 102
- Gamble (F. W.), the Colour-physiology of *Hippolyte varians*, 552
- Game : the Protection of Wild Animals in Africa, 616 ; in America, Prof. S. P. Langley, 617
- Ganglion-cells and Nerves, the Development of, N. Goronovitsch, 158
- Gannon (William), Substitute for Gas in Laboratories, 128
- Garbett (E. L.), the Smell emitted by Quartz when Rubbed, 491
- Gardens, School, G. B. Smith, 455
- Gardiner (Linda), Sylvia in Flowerland, 102
- Gardner (J. A.), Bromo-derivatives of Campho-pyric Acid, 434
- Garnier (E.), La Céramique Ancienne et Moderne, 466
- Garriott (Prof. E. B.), the West Indian Hurricane of August, 7-14, 1899, 112
- Garstang (Mr.), Water Temperature of Mouth of English Channel, 450
- Gas Furnace, New, Armand Gautier, 478
- Gas in Laboratories, Substitute for, William Gannon, 128
- Gas and Oil Engines, the Steam Engine and, Prof. John Perry, F.R.S., 100
- Gases : the Rise and Development of the Liquefaction of Gases, Willett L. Hardin, 98 ; La Liquefaction des Gaz et ses Applications, Prof. Julian Lefèvre, 98 ; the Kinetic Theory of Gases, Dr. Oskar Emil Meyer, 289 ; Prof. G. H. Bryan, F.R.S., 289 ; a Treatise on, S. H. Burbury, 289 ; Prof. G. H. Bryan, F.R.S., 289 ; Escape of Gases from Planetary Atmospheres, S. R. Cook, 501 ; Dr. G. Johnstone Stoney, F.R.S., 515
- Gatty (R. A.), Pigmy Flints in Yorkshire, 282
- Gaud (Fernand), Spectrophotometry of Electric Light, 95
- Gauss, the Correspondence of Olbers and, Dr. J. L. E. Dreyer, 486
- Gautier (Armand), Glycogen, 71 ; Normal Arsenic, in Animals, 166-7 ; Arsenic in Animals, 383 ; New Gas Furnace, 478
- Gautier (H.), Atomic Weight of Boron, 48
- Gearsley (Dr. Macleod), Marriages of the Deaf in America, 97
- Geelmayden (M.), Reducing Action of Calcium Carbide, 604
- Geinitz (Dr. H. B.), Death and Obituary Notice of, 450
- Geitel (H.), the Macfarlane-Moore Vacuum Tube, 93 ; Influence of Becquerel Rays on Electric Sparks, 190 ; Atmospheric Electricity, 422
- Gelation, Mechanism of, and Stability of Hydrosols, W. B. Hardy, 599
- Gellé (E.), Movements of Expired Air during Formation of Speech Sounds, 384
- Genytesse (P.), a New Terpenic Alcohol and its Derivatives, 580
- Geodesy : Elements of Precise Surveying and, Prof. Mansfield Merriman ; Sir C. W. Wilson, K.C.B., F.R.S., 77
- Geography : on the Sand Dunes bordering the Delta of the Nile, Vaughan Cornish, 20, 403 ; a Wooden Ball of Unknown Origin, Prof. H. Mohn, 31 ; the International Geography, Prof. T. G. Bonney, F.R.S., 50 ; the Naval Pioneers of Australia, Louis Becke, Walter Jeffery, 53 ; Seconda Spedizione Bottego, L'Omio. Viaggio d'Esplorazione nell'Africa, Orientale L. Vannutelli and C. Citteri, 75 ; Studien zur Geographie, Dr. W. Kobelt, 99 ; the Teaching of Geography in Switzerland and North Italy, Joan Berenice Reynolds, 126 ; the Possibilities of Antarctic Exploration, F. A. Cook, 136 ; Geographical Results of Belgian Antarctic Expedition, Dr. F. A. Cook, 258 ; Meteorology at the Berlin Geographical Congress, A. Lawrence Rotch, 177 ; the Writer of the Report, 177 ; the Yangtze Valley and Beyond, Mrs. J. F. Bishop, 252 ; Physical Geography, Prof. W. M. Davis, assisted by W. H. Snyder, 266 ; the Evolution of Geography : a Sketch of the Rise and Progress of Geographical Knowledge from the Earliest Times to the First Circumnavigation of the Globe, John Keane, 317 ; Death of Gen. Alexis de Tillo, 326 ; Obituary Notice of, 396 ; Geography of South West Sussex, Dr. H. R. Mill, 353 ; the Geography of Europe, Geo. G. Chisholm, Dr. Hugh Robert Mill, 368 ; Russian Geographical Society's Prize Awards, 397 ; Innermost Asia, Ralph P. Cobbold, 495 ; Return of Borchgrevink's Antarctic Expedition, 544 ; Grundzuge der geographisch-morphologischen Methode der Pflanzensystematik, Dr. R. von Wettstein, 563
- Geology : the Silurian Rocks of Britain. Vol I. Scotland, B. N. Peach, F.R.S., and J. Horne, 25 ; Death of Dr. Edward Orton, 38 ; Obituary Notice of, 59 ; Fundamental Structure-lines of Eastern Alps, Dr. C. Diener, 40 ; Geological Society, 142, 191, 285, 311, 382, 506, 530, 578, 603 ; Conglomerates of East Bokhara, W. R. Rickmers, 59 ; the Old Red Sandstone of Shetland, 80 ; Death and Obituary Notice of Sir J. William Dawson, LL.D., F.R.S., 80 ; Death of Dr. Henry Hicks, F.R.S., 84 ; Obituary Notice of, 109 ; the Colour of Flints, W. H. Wheeler, 106 ; Geology of Country Round Dorchester, Clement Reid, 113 ; Alaska and the Klondike, Angelo Heilprin, 122 ; the Cause of the Darjeeling Landslips, T. H. Holland, 127 ; a Canadian Lake of Subterranean Inflow, Andrew T. Drummond, 128 ; Geschichte der Geologie und Paläontologie bis Ende des 19 Jahrhunderts, Karl Alfred v. Zittel, 145 ; Calcine Sponges from Victoria Eocene, Dr. G. J. Hinde, F.R.S., 142 ; the Silurian Sequence of Rhayader, Herbert Lapworth, 143 ; Glaciated Pebbles in Lochinvar, (N.S.W.) Permo-Carboniferous Coalfield, 167 ; Geological Survey of the United Kingdom, 181 ; the Dwyka (South Africa) Boulder-beds, Dr. Blanford, 191 ; Geology of Somaliland, Dr. J. W. Gregory, 191 ; Drift Gravels at West Wickham, George Clinch, 191 ; *Palaeocineto* in British Carboniferous Rocks, Dr. W. Hind, 191 ; Advance and Retreat of Alpine Glaciers during Ice Age, 207 ; Results of Recent Soundings in the Pacific, Prof. Alexander Agassiz, 211 ; Die hochgebirge der Erde, Robert von Lendenfeld, Prof. T. G. Bonney, F.R.S., 219 ; the Geology and Physical Geography of Jamaica, Robert T. Hill, 237 ; the Orange River Ground Moraine near Prieska, Messrs. Rogers and Schwarz, 240 ; Evidence of Upheaval in Vanua Levu, Fiji, Dr. H. B. Guppy, 248 ; Geology of Western Australia, A. G. Maitland and T. Blatchford, 250 ; Floating Stones, Dr. Erland Nordenstiöld, 278 ; Cecil Carus-Wilson, 318 ; R. C. T. Evans, 318 ; Prof. A. W. Brightmore, 346 ; Effect of Earth Movement on Carboniferous Volcanic Rocks of Isle of Man, G. W. Lamplugh, 285 ; Diabasic Intrusion in Tasmanian Permo-Carboniferous Rocks, T. Stephens, 286 ; *Blechnoxylon*, R. Etheridge, jun., 303 ; on *Thelodus Pagei* from the Old Sandstone of Forfarshire and Report on the Fossil Fishes Collected by the Geological Survey of Scotland in the Silurian Rocks of the South of Scotland, R. H. Traquair, F.R.S., 307 ; Glaciation of Central Idaho, G. H. Stone, 310 ; a Particular Form of Surface the Result of

- Glacial Erosion, Dr. W. T. Blandford, F.R.S., 311 ; Formation of Dendrites, A. O. Watkins, 311 ; the Crystalline and Volcanic Rocks of Southern China, M.M. Levy, Lacroix, and Leclère, 359 ; Archaean Rocks of Finland, J. J. Sederholm, 373 ; Geology of Mount Kenya, Dr. J. W. Gregory, 382 ; Eleoelite-syenite and Fourchite of British East African Coast, Dr. J. W. Gregory, 382 ; Mechanical Theory of Mountain Formation, Marcel Bertrand, 883 ; Origin of Granite, C. E. Stromeier, 358 ; Lord Kelvin on the Origin of Granite, A. R. Hunt, 391, 589 ; Death of K. M. Paul, 397 ; Metamorphic Rocks in Tyrone and Donegal, Prof. G. A. J. Cole, 407 ; the Life of James Dwight Dana, Scientific Explorer, Mineralogist, Geologist, Zoologist, Professor in Yale University, Daniel C. Gilman, Prof. John W. Judd, C.B., F.R.S., 409 ; Sedimentary Rocks of Southern Patagonia, J. B. Hatcher, 432 ; Devonian Strata in Colorado, A. C. Spencer, 432 ; the Scientific Study of Scenery, John E. Marr, F.R.S., 441 ; Geology of Galician Oil-bearing Strata, Prof. R. Zuber, 452 ; Similar Geological Structures in South Tyrol and the Isle of Man, Dr. Maria M. Gordon, 490 ; Lower Cambrian Terrane in Atlantic Province, C. D. Walcott, 500 ; Geology of Gilgit, Lieut.-General C. A. McMahon, F.R.S., 530 ; Rocks of South-east Coast of Jersey, John Parkinson, 530 ; Death and Obituary Notice of G. H. Morton, 571 ; the South Alaskan Gold-fields, G. F. Becker, 600 ; Coal-fields of Puget Sound, Washington, B. Willis, 600 ; the Judith Mountains of Montana, W. H. Weed and L. V. Pirsson, 600 ; Mining Districts of Idaho Basin, W. Lindgren, 600 ; Mining Industries of Telluride Quadrangle, Colorado, C. W. Rivington, 600 ; the Movements of Ground-water, F. H. King, 601 ; Geology of Old Hampshire County, Mass., Prof. B. K. Emerson, 601 ; the Aspen Mining District, Colorado, J. E. Spurr, 601 ; Eruptive Rocks from New Zealand, Frank Rutley, 603 ; Minerals containing Rare Earths, Baron A. E. Nordenskiöld, 603 ; Rock-structures in Isle of Man and South Tyrol, G. W. Lamplough, 612 ; Petroleum in Algeria, M. Neuburgher, 618 ; Zones in the Chalk, Dr. A. W. Rowe, 625 ; *See also* Palæobotany, Palæontology, and Glaciation.
- Geometry : Practical Plane and Solid Geometry, J. Harrison, G. A. Baxandall, 201 ; Euclid, Books I.-IV., Charles Smith, Sophie Bryant, 102 ; Euclid's Elements of Geometry, Charles Smith and Sophie Bryant, 365 ; a Geometric Determination of the Median Value of a System of Normal Variants, from Two of its Centiles, Dr. Francis Galton, F.R.S., 102 ; Geometrical Representation of Relation between Wave-velocity and Group-velocity, Prof. Horace Lamb, F.R.S., 286 ; the Elements of Co-ordinate Geometry, J. H. Grace, 412
- Gérard (E.), Co-existence of Reducing and Oxidising Diastase in Animal Organs, 192 ; Transformation of Nitrobenzene into Aniline by Horse-kidney Ferment, 407
- Gerland (Dr. E.), Geschichte der Physikalischen Experimenterkunst, 4
- Germany : Artificial Paving Stones in Germany, 14 ; the Conference of German Men of Science at Munich, 62 ; German Antarctic Expedition, Prof. Erich von Drygalski, 318 ; Muret-Sander's Encyclopedic English-German and German-English Dictionary, 610
- Gernez (D.), Transformation Temperature of Quadratic and Orthorhombic Mercuric Iodide, 239
- Gerschun (Al.), Method for Determining Mean Density of Earth, 192
- Getman (Frederick Hutton), the Elements of Blowpipe Analysis, 176
- Geyser Activity, Decline of, in Yellowstone Park, Prof. E. H. Barbour, 398
- Ghosts, Illogical Concerning, Kumagusu Minakata, 564
- Giacobini, Comet (1899 e), 17, 87, 114, 137 ; M. Perrotin, 47
- Giacobini, Comet (1900 a), 355, 402, 424
- Gianoli (Prof. G.), Formalin as a Preventive of Silkworm Disease, 520
- Giappone, Cina e, E. von Hesse Wartegg, 513
- Gibbs (J. Willard), Équilibre des Systèmes Chimiques, 390
- Gibbs Thermodynamical Model, W. B. Boynton, 414
- Gibson (Prof. J.), Electric Thermostat, 482
- Giesel (F.), Magnetic Deflection of Bécquerel Rays, 262
- Giffen (Sir R. K. C. B., F.R.S.), the Coming Wheat Scarcity, 169 ; Economic Science, 581
- Giggleswick Well, the Silver Thread Phenomenon in, Dr. Broadbent, 70
- Giglioli (Prof. Henry H.), Dr. Kobelt and the Mediterranean Fauna, 227
- Gilbody (A. W.), Brasiliin and Hæmatoxylin, III., 264
- Gill (Dr.), Cape Star Catalogue for 1890, 597
- Gillot (M.), Hydrolysis of Raffinose by *Penicillium glaucum*, 621
- Gilmant (Daniel C.), the Life of James Dwight Dana, Scientific Explorer, Mineralogist, Geologist, Zoologist, Professor in Yale University, 409
- Glasenapp (S. de), Observations of the Leonids, 359
- Glycogen, Microscopic Researches on, Part II., Charles Creighton, 386
- Goillard (Cl.), New Fossil Myocene Rodent, *Anomalomys Gaudryi*, 336
- Gold Mining : Alaska and the Klondike, Angelo Heilprin, 122
- Goniometer, New Three-circle, G. H. F. Smith, 113
- Gooch (F. A.), Action of Acetylene on Copper Oxides, 93
- Goode and Matthews (Messrs.), on the Admiralty Harbour Works at Dover, 20
- Gordon (Dr. Maria M.), Similar Geological Structures in South Tyrol and the Isle of Man, 490
- Gore (Dr. G.), the Scientific Basis of Morality, 389
- Goronovitsch (N.), Untersuchungen über die erste Anlage der Kranialnerven bei *Salmo fario*, 158
- Göttingen Royal Society, 168
- Gould, the (Benjamin Althorp), Fund, 479
- Gowan (Miss J.), on the Morphology and Geological History of the Maiden-Hair Tree, 69
- Grace (J. H.), the Elements of Co-ordinate Geometry, 412
- Græffé (Herr), The Preparation of Metallic Cesium, 61
- Grætz (L.), Quincke's Rotations in Electric Field, 627
- Graftonite, S. L. Penfield, 310
- Grand'Eury (M.), Origin of Fossil Trunks in Coal-measures, 579 ; the Stigmariæ, 628
- Granger (Albert), an Arsenide of Nickel, 580
- Granite, Origin of, C. E. Stromeier, 358 ; Lord Kelvin on the Origin of Granite, A. R. Hunt, 391, 589
- Granodiorite, W. Lindgren, 626
- Grating, New Mode of Using Concave Diffraction, Dr. G. B. Rizzo, 501, 541
- Gratings, Echelon Film, Charles P. Butler, 275
- Gray (J.), on Recent and most excellent Ethnographical Work in East Aberdeenshire, 43
- Green (N. E.), Death and Obituary Notice of, 156
- Greenhill (Prof. R. G., F.R.S.), Practical Mathematics, by Prof. John Perry, F.R.S., 582
- Greenish (Henry G.), an Introduction to the Study of Materia Medica, 174
- Gregory (J. R.), Death and Obituary Notice of, 302
- Gregory (Dr. J. W.), Geology of Somaliland, 191 ; Ancestry of Helioporidæ (Blue Coral), 311, 555 ; Geology of Mount Kenya, 382 ; Eleoelite-syenite and Fourchite of British East African Coast, 382
- Gregory (R. A.), Experimental Science (Physiography : Section I.), 77 ; Exercises in Practical Physics, 390
- Gréhan (N.), Estimation of Alcohol in Blood and Tissues, 95
- Grey's Rock Paintings, H. Ling Roth, 248
- Grifini (Prof. Achille), Zoologia, 175
- Grifon (Ed.), Chlorophyll Assimilation in Solar Light which has traversed Leaves, 239
- Grindley (J. H.), Thermodynamic Properties of Superheated Steam, 432
- Growth of Animal and Vegetable Organisms, the, Charles Benedict Davenport, 218
- Grye (M. Bouquet de la), the Solar Parallax, 192, 236
- Guatemala, a Glimpse at, and Some Notes on the Ancient Monuments of Central America, Anne Carey Maudslay and Alfred Percival Maudslay, A. H. Keane, 292
- Guerbet (M.), Composition of East Indian Sandal Wood Essence, 407
- Guglielmo (G.), Hydrometers, 371, 421
- Guiana, British, Zoology of Mt. Roraima, F. V. McConnell and J. J. Quelch, 406
- Guichard (Marcel), Molybdenum Dioxide, 71 ; Molybdenum Disulphide, 239 ; New Crystallised Molybdenum Sulphide, 312
- Guignard (L.), Double Fertilisation in Lilium, 507
- Guignet (E.), La Céramique Ancienne et Moderne, 466
- Guillaume (Dr. C. E.), Determination of Mass of Cubic Decimetre of Water, 572

- Guillaume (J.), Observations of the Leonids, 143
 Guldborg (C. M.), Untersuchungen über die Chemischen Affinitäten, 412
 Gun-barrels, Vibrations of, C. Kranz, K. R. Koch, 58
 Guppy (Dr. H. B.), Evidence of Upheaval in Vanuatu Leva, Fiji, 248
 Guthrie (Prof. Francis), Death and Obituary Notice of, 84
 Guthrie (F. B.), Edible Earth from Fiji, 484
 Gutta Percha : a Gutta Percha Plant, Prof. F. E. Weiss, 7 ; Les Arbres à Gutta-Percha, leur Culture, Mission relativ à l'Acclimation de ces Arbres aux Antilles et la Guyane, Henri Lecomte, 538
 Gutton (C.), Velocity of Propagation of Electromagnetic Waves in Bitumen, 579
 Guyot (A.), The Tautomerism of Benzoyl-benzoic Acid, 239
 Gwyther (R. W.), Conditions of Solitary Wave-propagation, 383 ; Motion of Particles in Steady Fluid Motion, 383
 Haddon (Dr. A. C., F.R.S.), on the Yaraikanna Tribe of Cape York, 44 ; Eaglehawk and Crow : a Study of the Australian Aborigines, including an Inquiry into their Origin and a Survey of Australian Languages, John Mathew, 193 ; the Races of Man ; an Outline of Anthropology and Ethnography, J. Deniker, 462 ; Native Life and Customs in Sarawak, 578
 Hadfield (R. A.), Armour Plates, 301
 Hadey (H. E.), Magnetism and Electricity for Beginners, 200
 Hafkine's Anti-plague Inoculations, 550
 Hafkine's Inoculations and the Indian Plague, 422
 Haga (T.), Non-existence of Dihydroxylamine Derivatives of Potassium Nitrite, 505
 Hagen (E.), Reflective Power of Metals, 555
 Hail-prevention by Gun firing, Dr. J. M. Fenton, 451
 Hall (H.), New Syntheses of Indene, 505, 547
 Hall (Leonard), Man, the Microcosm, 6
 Hall (R.), Albinism and Melanism in Australian Birds, 620
 Haller (A.), the Tautomerism of Benzoyl-benzoic Acid, 239 ; Synthesis of Campholic Acid, 407 ; New Reaction between Aromatic Aldehydes and Sodium Derivative of Borneol, 507
 Halm (Dr. J.), the Relation between the Periodic Changes of Solar Activity and the Earth's Motion, 445
 Halo Round a Shadow, Howard Fox, 7
 Hamburger (Dr.), Fat and Soap Absorption in Large and Small Intestine, 216
 Hamy (Maurice), Interference Method of Measuring Small Diameters, 402 ; Determination of Standard Lines in Spectrum, 435 ; Determination of Standard Points in Spectrum, 507
 Hanbury (F. J.), Flora of Kent, 489
 Hanitsch (Dr. R.), Mosquitoes and Malaria, 177
 Hannequin (Arthur), Essai Critique sur l'Hypothèse des Atomes dans la Science Contemporaine, 26
 Hantzsch (Prof.), New Iodide of Nitrogen, 453
 Happiness, Life and, Auguste Marrot, 365
 Harbour Works at Dover, Admiralty, Messrs. Goode and Matthews, 20
 Harden (Arthur), Inorganic Chemistry for Advanced Students, 125
 Hardin Willet L.), the Rise and Development of the Liquefaction of Gases, 98
 Hardy (W. B.), Mechanism of Gelation and Stability of Hydrosols, 599
 Hargrave (L.), Sailing Birds dependent on Wave-power, 167
 Harker (Alfred), Magnetic Disturbances in Isle of Skye, 459
 Harker (G.), Composition of New South Wales Labradorite and Topazes, 483
 Harris (R. A.), Tides along the Antarctic Continent, 490
 Harrison (J.), Practical Plane and Solid Geometry, 101
 Harrison (J. A.), First Steps in Earth Knowledge ; being an Introduction to Physiography, 317
 Harrison (R. G.), Experiments on Growth of Tadpole's Tails, 206
 Hartley (Sir Charles), on the Engineering Works of the Suez Canal, 21
 Hartley (E. G. J.), Beudantite, 382
 Hartley Botanical Laboratories of University College, Liverpool, 454
 Hartung (J. E.), Animals and Poisonous Plants, 142
 Hartmann (Dr. J.), a New Photographic Photometer, 306
 Harvard College Observatory, 402
 Harvard Photometry, Proposed New, 208
 Harvey (A. W.), Racemisation during formation of Benzylidene, Benzoyl and Acetyl Derivatives of Dextro-ac-tetrahydro- β -Naphthylamine, 530
 Hasenoehrl (Dr. Fritz), Dielectric Constants of Liquid Nitrous Oxide and Nitrogen, 547
 Haswell (Prof. W. A.), a Manual of Zoology, 559
 Hatcher (J. B.), Sedimentary Rocks of Southern Patagonia, 432
 Haydon (W. T.), a Fresh-water Chert from Asia Minor, 520
 Hayes (Captain M. H.), Colour of Horses for Service in Hot Countries, 445
 Hazen (Prof. H. A.), Death and Obituary Notice of, 398
 Heat : the Conductivities of Mixtures, Dr. C. H. Lees, 118 ; Apparatus for Determining Heat required to Evaporate Steam from Saturated Salt Solutions, M. Trouton, 143 ; Boiling Temperature of Hydrocarbons, Prof. H. A. Hünig, 216 ; Cooling of a Body in Steady Air-blast, II., Prof. Mitchell, 238 ; Transformation Temperature of Quadratic and Orthorhombic Mercuric Iodide, D. Gernez, 239 ; Thermoelectric Properties of Mercury, Dr. W. Peddie and A. B. Shand, 286 ; Value of Internal Pressure in Equations of Van Waals and Clausius, Daniel Berthelot, 287 ; the Co-volume in Characteristic Equation of Fluids, Daniel Berthelot, 311 ; Hall Phenomenon and Thermomagnetic Currents, G. Moureau, 311 ; New Method of Measuring Thermal Sensibility, Ed. Toulouse and W. Vaschide, 336 ; Change with Temperature of Coefficient of Absorption of Gas in Liquid, Prof. Kuenen, 359 ; Specific Heat of Marble, Prof. B. O. Peirce and Robert W. Willson, 367 ; Freezing Points of Solutions, E. H. Loomis, 399 ; the Ionisation of Dilute Solutions at the Freezing Point, W. C. D. Whetham, 504 ; Limiting Value for Molecular Depression of Freezing Point in Non-electrolytic Solutions, Herr Loomis, 521 ; Use of Violuric Acid in Calorimetric Investigations, Prof. A. Abegg, 402 ; Stationary Temperature of Electrically Heated Conductor, F. Kohlrausch, 432 ; Thermodynamic Properties of Super-heated Steam, J. H. Grindley, 432 ; Sugar as Heat-producer in Fasting Animals, Prof. U. Mossé, 476 ; Effects of Strain on Thermo-electric Qualities of Metals, Prof. M. Maclean, 481 ; Electric Thermostat, Prof. J. Gibson and A. W. C. Menzies, 482 ; Underground Temperature, J. L. C. Rae, E. F. Pittman and Prof. T. W. E. David, 484 ; Hot Water and Soft Glass, C. Barus, 528 ; Electrical Thermostat, W. Duane and C. A. Lory, 528 ; Specific Heat of Blood, H. Bordier, 532 ; Solubility of Carbonic Acid in Alcohol at Various Temperatures, C. Bohr, 554 ; Specific Heats of Metals at Low Temperatures, U. Behn, 554 ; Heat of Sublimation of Carbonic Acid and of Evaporation of Air, U. Behn, 554 ; Heat for Advanced Students, Edwin Edser, 557 ; Influence of Heating on Passage of Electricity through Rarefied Gases, J. Stark, 572 ; Loss of Phosphorescence by Heat, Gustave le Bon, 579 ; Heat of Combination of Metals in Alloy Formation, Dr. A. Galt, 579 ; Mechanism of Gelation and Stability of Hydrosols, W. B. Hardy, 599 ; Movements Produced in Liquids by Heat Connection, Henri Bénard, 604 ; Heat of Formation of Hydrated and Anhydrous Strontium Dioxide, M. de Forcrand, 604 ; Size at which Heat-movements Manifested in Matter, Prof. G. F. Fitzgerald, F.R.S., 612 ; Heat of Combustion of some very Volatile Liquids, MM. Berthelot and Delépine, 627
 Heather Beer, Dr. W. C. MacLagan, 286
 Heavens at a Glance, the Arthur Mee, 62
 Heawood (E.), on the Date of the Discovery of Australia, 20
 Hedley (Charles), is New Zealand a Zoological Region ? 589
 Heilprin (Angelo), Alaska and the Klondike : a Journey to the New Eldorado, with Hints to the Traveller, and Observations on the Physical History and Geology of the Gold Regions, the Conditions of Working the Klondike Placers, and the Laws Governing and Regulating Mining in the North-west Territory of Canada, 122
 Heilprin (Prof. A.), the Level of Lake Nicaragua, 451
 Heinke (C.), Wave Current Generators, 626
 Hemming (G. W.), Billiards Mathematically Treated, 410, 468
 Hemsalech (G. A.), Constitution of Electric Spark, 258 ; Influence of Iron on Discharge of Condenser through Induction Coil, 579
 Hemsley (W. Botting, F.R.S.), the Students' Flora of New Zealand and the Outlying Islands, Thomas Kirk, 146 ; List of the Genera and Species of New Zealand Plants, A. Hamilton, 146

- Henderson (Dr. John), Cadmium Cell as Standard of Electro-motive Force, 483
 Henry (E. R.), Finger-prints as a Method for the Identification of Criminals, 42
 Henry (M.), New Reaction of Formaldehyde, 621
 Herbertson (A. J.), Atlas of Meteorology, 171
 Herdman (Prof. W. A., F.R.S.), Stockholm International Conference on the Exploration of the Sea, 78, 177; Liverpool Marine Biology Committee's Memoirs, I., *Ascidia*, 126; *Oysters and Disease*, 587; *Marine Zoology in Australia*, 590
 Heredit: Marriages of the Deaf in America, Edward Allen Fay, Dr. Macleod Yearsley, 97; Racial Aspect of Voluntary Enlistment, R. C. T. Evans, 200
 Hergesell (Dr. H.), Recent International Balloon Ascents, 572
 Héricourt (J.), Treatment of the Tuberculous by Zomotherapy, 459
 Hérissey (H.), Soluble Ferments produced during Germination of Seeds with Horned Albumen, 287; Seminase, 384
 Hero of Alexandria, W. Schmidt, 202
 Herrick (C. J.), Nerve-components of Bony Fishes, 328
 Herschel (Prof. A. S., F.R.S.), Contemporary Meteor-showers of the Leonid and Bielid Meteor-periods, 222, 271
 Hertwig (O.), Die Elemente der Entwickelungslehre des Menschen und der Wirbeltiere, 610
 Hertz Exciter, Experimental Study of, R. Swyngedaaw, 507
 Hewitt (J. T.), the Preparation of Benzeneazoorthonitrophenol, 190
 Heycock (C. T., F.R.S.), Gold Aluminium Alloys, 357
 Heydweiller (A.), Moving Bodies in Electric Field, 190
 Hibbert (Henri), Cacodylic Acid, 239
 Hicks (Dr. Henry, F.R.S.), Death of, 84; Obituary Notice of, 109
 Hickson (S. J., F.R.S.), Meduse of *Millepora*, 213
 Hidden (W. E.), New Mode of Occurrence of Ruby in North Carolina, 93
 Highton (H. P.), an Introduction to Qualitative Analysis, 514
 Hill (J. P.), Embryology of Marsupials, 400
 Hill (Robert T.), the Geology and Physical Geography of Jamaica, 237
 Hillyer (H. W.), Experiments to Illustrate the Principles of Chemistry, 52
 Himalayas, Western, the Air Movement at Simla and in the, 380
 Hind (Dr. W.), *Palaeoneito* in British Carboniferous Rocks, 191
 Hinde (Dr. G. J., F.R.S.), Calcisponges from Victoria Eocene, 142
 Hinks (A. R.), Reduction of Star Photographs, 355
Hippolyte varians, the Colour-physiology of, F. W. Keeble and F. W. Gamble, 552
 Histology, A. Koelliker's Handbuch der Gewebelehre des Menschen, 316
 History of the Art of Experimenting, Dr. E. Gerland and Dr. F. Traumüller, 4
 History of European Fauna, the, Dr. R. F. Scharff, 341
 History, Oriental, from B.C. 850 to B.C. 330, 361
 Hochgebirge der Erde, Die, Robert von Lendenfeld, Prof. T. G. Bonney, F.R.S., 219
 Hodges (Dr. J. F.), Death and Obituary Notice of, 184
 Hoff (J. H. van 't), *Leçons de Chemie Physique*, 294
 Hoff (van 't), Celebration at Rotterdam, the, Dr. H. M. Dawson, 321
 Holland (T. H.), the Cause of the Darjeeling Landslips, 127
 Holland Submarine Boat, the, 135
 Hollis (Dr. W. Ainslie), Dark Lightning Flashes, 7
 Holman (Prof. Silas W.), Death of, 618
 Holmes (W. H.), the Evidence as to Auriferous Gravel Man in California, 206
 Holmes' Comet (1899 d), 17, 62, 87, 114, 137
 Holmes' Comet (1899 II.), 236
 "Homing" Pigeon, the Orientation of the, E. de Cyon, 596
 Hopkins (Dr. A. D.), Forest Fires and Insects, 327
 Hopkins (F. G.), a Pure Proteid from Egg-white, 482
 Horne (J.), the Silurian Rocks of Britain, vol. i., Scotland, 25
 Horse-sickness, the African, Dr. R. Wallace, 235
 Horse, a Surgical Operating Table for the, J. A. W. Dollar, 588
 Horses, Colour of, for Service in Hot Countries, Captain M. H. Hayes, 445
 Horst (Dr. R.), Peripatus in the Malay Peninsula, 31
 Hose (C.), Native Life and Customs in Sarawak, 578
 Hot Countries, Colour of Horses for Service in, Captain M. H. Hayes, 445
 Howard (A.), on a Disease of *Tradescantia*, 66
 Howe (R. H., jun.), the Birds of Rhode Island, 323
 Howles (F.), Production of Nitric Acid from Air by Electric Flame, 507
 Hudson (Rev. R.), a Daylight Meteor, 280
 Hughes (Prof. D. E., F.R.S.), Death of, 302; Obituary Notice of, 325
 Hugot (C.), Iodide of Nitrogen, 435
 Huiles Essentielles, Essais des, Henri Labbé, 5
 Human Nature, its Principles and the Principles of Physiognomy, 127
 Hungaria, Opposition of Minor Planet (434), 453
 Hunicke (Prof. H. A.), Boiling Temperatures of Hydrocarbons, 216
 Hunt (A. R.), Telephones and Lightning Discharges, 368; Lord Kelvin on the Origin of Granite, 391, 589
 Hurricanes: the West Indian Hurricane of August 7-14, 1899, Prof. E. B. Garrott, 112; Hurricane Tracks, 1890-9, 112; Extirpation of a Species of Humming-bird by Hurricane, T. D. Pigott, 545
 Hurter Memorial Lecture, the, Prof. G. Lunge, 92
 Hussak (Dr. E.), Florencite, 119
 Hutchins (D. E.), the Fitting of the Cycle to its Rider, 368
 Hutchinson (A.), Stokesite, 119, 215
 Hutchinson (Rev. H. N.), *Primeval Scenes*, being some Comic Aspects of Life in Prehistoric Times, 150
 Huxley (Thomas Henry), the Scientific Memoirs of, 440
 Hybrids, Law of Separation, H. de Vries, 556
 Hydrography: Atlantic Deep-sea Soundings, R. E. Peake and Sir John Murray, 286; Water Temperatures of Mouth of English Channel, Mr. Garstang, 450; Tides along the Antarctic Continent, R. A. Harris, 490
 Hydrometers, G. Guglielmo, 371, 421
 Hygiene, Water-sterilisation by Ozone, Dr. Weyl, 65
 Ice, Cave-, the Origin and Occurrence of, Dr. Hans Lohmann, 591
 Ice Crystals, Tyndall's, 590
 Ichthyology: Light-collecting Apparatus in Deep-sea Fish, Prof. Chun, 65; *Rorqual* Whale at Woolwich, 134; *Polypterus* and *Protopterus*, J. S. Budgett, 166; Nerve-components of Bony Fishes, C. J. Herrick, 328; Nasal Sacs in Flat-fish, H. M. Kyle, 358; the Fishes of North and Middle America: a Descriptive Catalogue of the Species of Fish-like Vertebrates found in the Waters of North America, North of the Isthmus of Panama, David Starr Jordan and Barton Warren Evermann, 362; Photography of Live Fish, Douglas English, 451
 Ideas, General, Evolution of, Prof. Th. Ribot, 149
 Illogicality concerning Ghosts, Kumagusu Minakata, 564
 Illustrated History of Mathematics, J. Boyer, 510
 Illustrations of Lepidoptera, H. J. Elwes, F.R.S., 468
 Impact, J. H. Vincent, 507
 Inadequacy of Cell-theory, Les Étres Vivants, Paul Busquet, 609
 Income, the Distribution of, by Prof. William Smart, Sir R. Giffen, F.R.S., 581
 Index, General, by Robert Newstead, F.E.S., Curator of the Grosvenor Museum, Chester, to Annual Reports of Observations of Injurious Insects 1877-1898, Eleanor A. Ormerod, 126
 India: Botany and the Indian Forest Department, Prof. W. Schlich, 6; the Indian Forest Service, W. F. Sinclair, 31; Indian Forest Insect-pests, E. P. Stebbing, 38; on the Primitive Rites of Disposal of the Dead as Illustrated by Survivals in Modern India, W. Crooke, 44; Snake-bite Cured by Calmette's Antivenene, Major S. J. Rennie, 85; Rinderpest and Serotherapy, 157; Displacements in Khasi and Garo Hills during Earthquake of June 1897, 206; the Indian University of Research, 260; a Descriptive Catalogue of the Indian Deep-sea Fishes in the Indian Museum, 291; an Account of the Deep-sea *Brachyura*: being Systematic Reports upon the Materials Collected by the Royal Indian Marine Survey Ship *Investigator*, A. Alcock, 291; Indian Tidal Forecasts, 303; Indian Anti-typhoid Inoculations, Prof. A. E. Wright, 327; Indian Meteorological Memoirs, 380; the Plague and Haffkine's Inoculations, 422; Haffkine's

- Anti-plague Inoculations, 550 ; Mineral Production in India, 500
 Indian Corn, Kumagusu Minakata, 392, 515 ; W. F. Sinclair, 445
 India-rubber, on, R. H. Biffen, 68
 Indications, Deceptive Bibliographic, F. A. Bather, 367
 Indicators and Test Papers, Alfred I. Cohn, 269
 Industrial Progress, Technical Instruction in Relation to, Prof. W. Ripper, 356
 Industrie, *Essais du Commerce et de l'*, L. Cuniasse and R. Zwilling, 176
 Industrie des Matières Colorantes Azoïques, L', George F. Jaubert, 53
 Ingall (E. D.), Mineral Production of Canada in 1899, 545
 Ingham (W.), the Incrustation of Iron Water Pipes, 14
 Inner Corona, the Structure of the, Prof. S. P. Langley, For. M.R.S., 443
 Innermost Asia, Ralph P. Cobbold, 495
 Inoculations, Anti-plague, 550
 Inorganic Chemical Preparations, Felix Lengfeld, 101
 Inorganic Chemistry for Advanced Students, Sir Henry E. Roscoe, F.R.S., and Arthur Harden, 125
 Inorganic and Organic, a Manual of Chemistry, Dr. Arthur P. Luff and Frederick J. M. Page, 442
 Inorganic Evolution, the Methods of, Sir Norman Lockyer, K.C.B., F.R.S., 129, 296
 Insect Friends and Foes, Our: How to Collect, Preserve and Study Them, Belle S. Cragin, 342
 Insects as Carriers of Disease, Dr. G. H. F. Nuttall, 153
 Insects, Shadows of, Wm. Parkinson, 177
 Institution of Civil Engineers, 41
 Institution of Mechanical Engineers, 14
 Instrumentenkunde, Handbuch der Astronomischen, Dr. L. Ambroen, 241
 Integrals, Studies in, Rev. W. R. W. Roberts, 383 ; W. F. Sheppard, 459
 Interference Curves depending on Perspective, A. Mallock, 29
 Interference Method of Measuring Small Diameters, M. Maurice Hamy, 402
 Internal Stresses in Iron and Steel, Thos. Andrews, F.R.S., 541
 International Committee of Weights and Measures, 350
 International Geography, the, Prof. T. G. Bonney, F.R.S., 50
 Interrupters, Mercury Jet, 421 ; S. M. Kintner, 590
 Intermercurial Planet, Search for an, Prof. W. H. Pickering, 479
 Invertebrata, Palaeontology of, Prof. K. A. von Zittel, 608
 Investigation, the Position that Universities should take in regard to, 417
 Irish Academy, Royal, 143, 191, 383, 407, 507
 Iron and Steel, Internal Stresses in, Thos. Andrews, F.R.S., 541
 Iron-smelting by Electricity, 618
 Irving (Rev. Dr. A.), the University of London Elections, 318
 Isle of Man, Similar Geological Structures in South Tyrol and the, Dr. Maria M. Gordon, 490
 Issel (Prof. A.), Barisâl Guns and Earthquakes, 60
 Italy, North, the Teaching of Geography in Switzerland and, Joan Berenice Reynolds, 126
 Jaboin (A.), the Crystallised Phosphides of Strontium and Barium, 96
 Jackson (H.), Jordanite and Rathite, 119 ; Researches in Sugar Group, 215 ; Formation of α - and β -Acrose from Glycolic Aldehyde, 264
 Jamaica : Recent Changes in Fauna, Mr. Duerden, 157 ; Sea Fisheries of, Mr. Duerden, 157 ; the Geology and Physical Geography of Jamaica, Robert T. Hill, 237
 Jamieson (Prof. Andrew), the Action of Electric Tramways on Land End of Submarine Cables, 595
 Jansen (J.), Observations of the Leonids, 119
 Japan : Seismology in, Prof. Omori, 282 ; Chemical Industry in Japan, 421 ; *Cina e Giappone*, E. von Hesse Wartegg, 513
 Japp (F. R.), Isoamarine, 405 ; Amarine and Isoamarine, 119
 Jaubert (Dr. G. F.), L'Industrie des Matières Colorantes Azoïques, 53 ; Diazoising of Safranine, 483 ; Produits Aromatiques, Artificiels et Naturels, 563
 Jaubert (Joseph), Barometric Oscillations of February 13-19, 1899, 436
 Jeffery (Walter), the Naval Pioneers of Australia, 53
 Jenkin (B. M.), Electrical Equipment of Waterloo and City Railway, 85
 Jenner Institute of Preventive Medicine, Transactions of the (late British Institute of Preventive Medicine), 387
 Job, the Witness of Creation, *Nature Sketches from the Book of*, M. Cordelia Leigh, 466
 Jodin (Victor), Resistance of Seeds to High Temperatures, 144
 Johannsen (Prof. W.), Etherisation of Plants, 423
 Johnson (Prof. T.), the Yellow Potato Blight, 191
 Johnstone (J.), the Common Cockle, 372
 Joly (Prof. C. J.), Applications of Hamilton's Operator ∇ in Calculus of Variations, 191 ; Place of *Ausdehnungslehre* in Algebra of Quaternions, 407
 Jones (F. W.), Molecular Structure of Organised Bodies, 273
 Jones (H. O.), Oxalacetic Acid, 190
 Jordan (David Starr), the Fishes of North and Middle America : a Descriptive Catalogue of the Species of Fish-like Vertebrates found in the Waters of North America, North of the Isthmus of Panama, 362
 Jordan (Prof. Samson), Death of, 518 ; Obituary Notice of, 544
 Joteyko (J.), Work of Spinal Nervous Centres, 483
 Joubert (G. F.), Naphthopurpurin, 48
 Jouniaux (M.), Interaction of Hydrogen and Silver Chloride, 643
 Journal of Botany, 46, 262, 603
 Journal of Royal Microscopical Society, 23, 262, 432, 602
 Jowett (H. H. D.), Jaborine, 505 ; Salinigrin, 627
 Jubilee of the Royal Meteorological Society, 565
 Judd (J. W.), New Mode of Occurrence of Ruby in North Carolina, 93
 Judd (Prof. John W., C.B., F.R.S.), the Life of James Dwight Dana, Scientific Explorer, Mineralogist, Geologist and Zoologist, Professor in Yale University, Daniel C. Gilman, 409
 Jungfrau Electric Railway, the, 572
 Jupiter, Mercury and, as Morning Stars, 137
 Jupiter, Orbit of Fifth Satellite of, Prof. E. E. Barnard, 157
 Juritz (C. F.), Soils of S. W. Cape Colony, 436
 Kahlbaum (C.), the Distillation of Metals, 65
 Kahlbaum (Georg W. A.), Justus von Liebig und Christian Friedrich Schönbein, Briefwechsel, 1853-1868, 513
 Kangaroo, the Newly-born, D. le Souef, 423
 Kant (Immanuel), Dreams of a Spirit-seer, Illustrated by Dreams of Metaphysics, 563
 Kathode Rays, on the Carriers in the, W. B. Morton, 365
 Keane (A. H.), a Glimpse at Guatemala and some Notes on the Ancient Monuments of Central America, Anne Carey Maudslay and Alfred Percival Maudslay, 292
 Keane (John), the Evolution of Geography, a Sketch of the Rise and Progress of Geographical Knowledge from the Earliest Times to the First Circumnavigation of the Globe, 317
 Kearton (R.), Our Rarer British Breeding Birds, their Nests, Eggs, and Summer Haunts, 323
 Keeble (F. W.), the Colour-physiology of *Hippolyte varians*, 552
 Keegan (P. Q.), Experiments on the Floral Colours, 105
 Keeler (Prof. J. E.), Predominance of Spiral Nebulae, 87
 Keiser (Dr. E. H.), Acetylene Derivatives, 215
 Kelvin (Lord), Attempt to Reconcile Apparently Opposite Mechanical Properties of the Ether, 166 ; the Spinning Top, 166 ; Lord Kelvin on the Origin of Granite, A. R. Hunt, 391, 589
 Kennedy (Wardlaw), Beasts : Thumbnail Studies in Pets, 28
 Kent, Flora of, F. J. Hanbury and E. S. Marshall, 489
 Kerr (J. G.), Origin of Paired Limbs of Vertebrates, 166
 Kerr's Phenomenon, Researches on, MM. Abraham and Lemoine, 112
 Kew Gardens : List of Published Names of Plants introduced to Cultivation, 1876-1896, Kew Bulletin of Miscellaneous Information, Handbook of Tender Dicotyledons Cultivated in the Royal Gardens, Kew, Dr. Maxwell T. Masters, F.R.S., 537
 Kizer (Hans), Zoology of Norwegian North Atlantic Expedition, 258
 Kinetic Theory of Gases, the, Dr. Oskar Emil Meyer, 289 ; Prof. G. H. Bryan, F.R.S., 289 ; a Treatise on the Kinetic Theory of Gases, S. H. Burbury, 289 ; Prof. G. H. Bryan, F.R.S., 289

- King (F. H.), the Movements of Ground-water, 601
 King (L. W., F.S.A.), Babylonian Religion and Mythology, 437
 Kingsmill (Thos. W.), Leonid Meteor Showers, 491
 Kintert (S. M.), Mercury Jet Interrupters, 590
 Kipping (F. S.), Isomeric partially Racemic Salts containing Quinuvalent Nitrogen, 505; New Syntheses of Indene, 505, 547; Iodonium Compounds, 506; Decomposition of Semi-carbazones, 506
 Kirk (Thomas), the Students' Flora of New Zealand and the Outlying Islands, W. Botting Hemsley, F.R.S., 146
 Klein (Dr. E., F.R.S.), System der Bakterien, Dr. W. Migula, 464
 Klemperer (Prof.), Justus von Liebig and Medical Science, 63
 Kling (André), Biochemical Oxidation of Propylglycol, 239
 Klondike, Alaska and the, Angelo Heilprin, 122
 Knapp (Dr. S. A.), Rice Culture in U.S.A., 401
 Knibbs (G. H.), the Prismoidal Formula, 167
 Knopf (Herr Otto), New Minor Planet (1899 EY), 283
 Knott (Dr. C. G.), Magnetic Screening, 482
 Knowledge-making, the Utility of, as a means of Liberal Training, Prof. J. G. Macgregor, 159; G. H. Wyatt, 274
 Knuth (Prof. Paul), Death of, 110; Obituary Notice of, 205
 Kobelt (Dr. W.), Studien zur Geographie, 99; Dr. W. Kobelt and the Mediterranean Fauna, Prof. Henry H. Giglioli, 227; the Reviewer, 227
 Koch (K. R.), Vibrations of Gun Barrels, 58
 Koelliker's (A.), Handbuch der Gewebelehre des Menschen, 316
 Koettlitz (Dr.), Antarctic Exploration, 19
 Kohlrausch (Dr. F.), Kleiner Leitfaden der Practischen Physik, 200; Stationary Temperature of Electrically Heated Conductor, 432
 Kohn (L.), True Molecular Weight of Gaseous Sulphur, 373
 König (R.), Highest Audible and Inaudible Notes, 190
 Köppen (W.), Grundlinien der Maritimen Meteorologie, 101
 Kranz (C.), Vibrations of Gun Barrels, 58
 Kuennen (Prof.), a Simple Proof of Gibbs' Phase Rule, 359; Change with Temperature of Coefficients of Absorption of Gas in Liquid, 359
 Kyle (H. M.), Proposals of the Stockholm Fisheries Conference, 151; Nasal Sacs in Flat Fish, 358
 Laar (J. A. van), Application of Thermodynamics to Ramsay and Shields' Results upon Association of Liquids, 283
 Labbé (Henri), Essais des Huiles Essentielles, 5
 Laboratories: Laboratory Outline of General Chemistry, Alexander Smith, 27; Laboratory Manual, Experiments to Illustrate the Principles of Chemistry, H. W. Hillyer, 52; Substitute for Gas in Laboratories, William Gannon, 128; Biological Lectures from the Marine Biological Laboratory, Wood's Hole Massachusetts, 1898, 244; Laboratory Note-book for Chemical Students, Prof. Vivian B. Lewes and J. S. S. Brane, 412; Hartley Botanical Laboratories of University College, Liverpool, 454
 Lachlan (R.), the Elements of Euclid, 176
 Lacroix (A.), the Crystalline and Volcanic Rocks of Southern China, 359; Pseudo-Chalcedonite, 407
 Laer (M. van), the Bacillus of "Double-face" Disease in Beer, 287
 Laird (L. R.), Magnetic Viscosity, 432
 Lake, a Canadian, of Subterranean Inflow, Andrew T. Drummond, 128
 Lake Callabonna, Fossil Remains of, 275
 Lake Nicaragua, the Level of, Prof. A. Heilprin, 451
 Lamb (Prof. Horace, F.R.S.), Geometrical Representation of Relation between Wave-velocity and Group-velocity, 286
 Lamplugh (G. W.), Effect of Earth-movement on Carboniferous Volcanic Rocks of Isle of Man, 285; Rock-structures in Isle of Man and South Tyrol, 612
 Lander (G. D.), Mixture of Dry Silver Oxide and Alkyl Halides as an Alkylating Agent, 335; Alkylation by means of Dry Silver Oxide and Alkyl Iodides, 627
 Landolt (Dr. H.), Optical Activity and Chemical Composition, 269
 Landslips, the Cause of the Darjeeling, T. H. Holland, 127
 Langley (Prof. S. P., For. M.R.S.), the Structure of the Inner Corona, 443; Rock-salt as a Refraction-standard, 545; the Protection of Wild Animals in America, 617
 Lankester (Mrs.), Death of, 593
 Lankester (Prof. E. R., F.R.S.), Significance of Increased Size of Cerebrum in Recent as compared with Extinct Mammalia, 624
 Lapworth (A.), Action of Fuming Nitric Acid on α -dibromocamphor, 335; Acids obtained from α -dibromocamphor, 505
 Lapworth (Herbert), the Silurian Sequence of Rhayader, 143
 Larroque (Firmin), Mechanism of Hearing, 311
 Larsen (A.), Electric Conductivity of Dilute Amalgams, 432
 Lassarbohn (Prof. Dr.), Einführung in die Chemie in leicht-fasslicher Form, 51
 Latham (B.), Climatic Conditions of Plague, 214
 Latitude-variations, Study of, Jean Boccardi, 383
 Latitude, Variation of, Prof. Th. Albrecht, 574
 Latter (Oswald H.), Birds Capturing Butterflies, 56
 Lattermann (Dr.), the Colloid Metals, 64
 Lattes (E. C.), the Etruscan Numerals, 371
 Laurent (E.), Mistletoe-distribution in Belgium, 520
 Lawrence (H. E.), Magnetic Qualities of Building Brick, 421
 Le Bon (Gustave), Loss of Phosphorescence by Heat, 579
 Le Chatelier (H.), Changes in Volume accompanying hardening of Hydraulic Currents, 239
 Le Sueur (H. R.), Constitution of Fatty Acids, ii., 190
 Lead and Silver, the Metallurgy of, Henry F. Collins, 198
 Lebeau (Henri), Density and Analysis of Sulphur Perfluoride, 603
 Lebeau (P.), Preparation of Arsenides, 435; Sulphur Perfluoride, 579
 Lecarme (Léon and Louis), Wireless Telegraphy between Chamourin and Mt. Blanc, 280
 Lecher (E.), a Fallacy in Electrical Doctrine, 262
 Leclerc (M.), the Crystalline and Volcanic Rocks of Southern China, 359
 Lecomte (Henri), Les Arbres à Gutta-percha, leur Culture. Mission Relatif à l'accultimation de ces Arbres aux Antilles et la Guyane, 538
 Lees (Dr. C. H.), the Thermal Conductivities of Mixtures, 118; the Production of Electrolytic Copper, 392
 Lefebvre (P.), Action of Amyl Chloride on Calcium Carbide, 604
 Lefèvre (Prof. Julien), La Liquefaction des Gaz et ses Applications, 98
 Lehfeldt (Prof.), the Osmotic Pressure Analogy, 453
 Leidié (E.), Anhydrous Sesquichlorides of Rhodium and Iridium, 239; the Rhodio-cyanides, 288
 Leigh (M. Cordelia), The Witness of Creation: Nature Sketches from the Book of Job, 466
 Leiss (C.), Die Optischen Instrumente der Firma R. Fuess, deren Beschreibung, Justierung und Anwendung, 241
 Leloutre (G.), L'Échappement dans les Machines à Vapeur, 563
 Lemoine (J.), Researches on Kerr's Phenomenon, 112; Time of Establishing Electric Spark, 360; Instantaneous Disappearance of Rotatory Polarisation, 435
 Lenard (O.), Absorption of Light in Electrically Glowing Gases, 627
 Lendenfeld (Robert von), Die hochgebirge der Erde, 219
 Lengfeld (Felix), Inorganic Chemical Preparations, 101
 Lenses, Obliquely crossed Cylindrical, Prof. S. P. Thompson, 164; Exact Formulae for, T. H. Blakesley, 165
 Leonid Meteors, 374; Dr. G. Johnstone Stoney, F.R.S., 28, 82; Dr. A. M. W. Downing, F.R.S., 28; W. F. Denning, 81; M. Lewy, 119; M. J. Janssen, 119; J. Guillaume, 143; C. H. Trépied, 143; Harold Tarry, 143; Thos. W. Kingsmill, 491; Supposed Daylight Leonids, W. F. Denning, 152; Contemporary Meteor-showers of the Leonid and Bielid Meteor-periods, Prof. A. S. Herschel, F.R.S., 222, 271
 Lepcha Language, Dictionary of the, General G. B. Mainwaring, 442
 Lepidoptera: Über einige Aberrationen von Papilio Machaon, Dr. J. W. Spengel, 316; Illustrations of Lepidoptera, H. J. Elwes, F.R.S., 468; Bulgarian Lepidoptera, H. J. Elwes, 627
 Lepinay (J. M. de), Mass of Cubic Decimetre of Water, 71
 Leteur (F.), Detection of Silver in presence of Mercury Amido-chloride, 360
 Levy (Michel), the Crystalline and Volcanic Rocks of Southern China, 359
 Lewes (Prof. Vivian B.), Laboratory Note-book for Chemical Students, 412
 Lewis (A. L.), Stone Circles in Scotland, 530

- Lewis (P.), Influence of Impurities on Gaseous Spectrum, 93
 Lewis (W. J.), A Treatise on Crystallography, 485
 Lewkowitsch (J.), the Theory of Saponification, 94
 Liais (Emmanuel), Death and Obituary Notice of, 450
 Lieben (Prof.), the Aldoles, 64
 Liebig (Justus von) and Medical Science, Prof. Klemperer, 63 ; Justus von Liebig and Christian Friedrich Schönbein, Briefwechsel, 1853-1868, Georg W. A. Kahlbaum und Eduard Thon, 513
 Liebknecht (O.), Molecular Susceptibility of Paramagnetic Salts of Iron Group and of Salts of Rare Earths, 432
 Lie's Theory of Continuous Groups, the Chief Theorem of, S. E. Sclocum, 572
 Life and Happiness, Auguste Marrot, 365
 Life under other Conditions, Geoffrey Martin, 452
 Light, Kinematical Theory of Propagation of, M. Sagnac, 136
 Light Curve of Cerasiki's First Algol Variable, 355
 Lighthouse Apparatus, Modern, Dr. J. A. Purves, 393
 Lightning : Dark Lightning Flashes, Dr. W. Ainslie Hollis, 7 ; Dr. W. J. S. Lockyer, 7 ; on the Cause of Dark Lightning and the Clayden Effect, Prof. R. W. Wood, 104 ; Lightning and Wire Fences, F. J. Brodie, 257 ; the Effects of Lightning upon Electric Lamps, Sydney Webb, 343 ; Sir G. G. Stokes, Bart., F.R.S., 343, 413, 539 ; Prof. R. W. Wood, 391 ; Telephones and Lightning Discharges, A. R. Hunt, 368
 Lindgren (W.), Mining Districts of Idaho Basin, 600 ; Granodiorite, 626
 Linnean Society, 94, 142, 213, 264, 358, 406, 458, 506, 555, 627
 Lippmann (Prof. G.), Unités Électriques Absolues, 539
 Lippmann's Photography, a Fault in, O. Wiener, 93
 Liquefaction of Gases : the Rise and Development of the Liquefaction of Gases, Willett L. Hardin, 98 ; La Liquefaction des Gaz et ses Applications, Prof. Julien Lefèvre, 98
 Liquid Air as Anaesthetic, Dr. A. C. White, 258
 Liquids : Application of Thermodynamics to Ramsay and Shields' Results upon Association of Liquids, J. A. van Laar, 283 ; New Formula for Ostwald's Dilution Law, Dr. W. D. Bancroft, 303 ; Surface Tension of some Organic Liquids, Paul Dutoit and Louis Friderich, 383 ; Surface Tension Experiment, C. E. S. Phillips, 481
 Little (Charles E.), Cyclopaedia of Classified Dates, 513
 Liveing (Prof.), Absorption Spectra of Solutions of Didymium and Erbium Salts, 214
 Liverpool Marine Biology Committee's Memoirs, I. Ascidia, Prof. W. A. Herdman, F.R.S., 126
 Liverpool School of Tropical Diseases, 342
 Liverpool, Hartley Botanical Laboratories of University College, 454
 Lloyd (A. B.), In Dwarf Land and Cannibal Country, a Record of Travel and Discovery in Central Africa, 314
 Lloyd (Captain), Method which has been Developed at Elswick for Discharging Torpedoes below Water from the Broadside of a Ship when Steaming at a High Speed, 21
 Lockyer (Sir Norman, K.C.B., F.R.S.), On the Distribution of the Various Chemical Groups of Stars, 8 ; the Great Paris Telescope, 178 ; the Piscian Stars, 213 ; the Eclipse Expedition at Viziaburg, 229, 249 ; Spectrum of Silicon, 262 ; Preliminary Table of Wave-lengths of Enhanced Lines, 262
 Lockyer (Dr. William J. S.), Dark Lightning Flashes, 7 ; the November Meteors, 132 ; Photographs of Stars, Star Clusters and Nebulae, together with Records of Results obtained in the pursuit of Celestial Photography, Dr. Isaac Roberts, F.R.S., 533
 Locus Plague in New South Wales, the, W. W. Froggart, 620
 Lodge (Prof. Oliver), the Controversy on Volta's Contact-force, 382
 Loewy (M.), Observations of the Leonids, 119
 Logarithms : to Calculate a Simple Table of, Dr. Arthur Dufton, 415 ; Prof. John Perry, F.R.S., 415 ; Mechanical Method of Calculating Logarithms, H. C. Pocklington, 469
 Lohmann (Dr. Hans) the Origin and Occurrence of Cave-Ice, 591
 Lommel (Eugene), Text-book of Experimental Physics, 557
 London : the University of London, 492 ; Representation of the University of London, 275 ; London University Election, 299, 324, 369 ; Rev. Dr. A. Irving, 318
 Long Focus Photographic Telescope, 41
 Longevity and Mental Work, Prof. R. Manterola, 400
 Lönning (Dr. Einar), Onohippidium, 579 ; the Greenland Musk Ox, 458
 Loomis (E. H.), Freezing Points of Solutions, 399 ; Limiting Value for Molecular Depression of Freezing Point in Non-electrolytic Solutions, 521
 Lorenz (L.), Ouvres Scientifiques de, Revues et Annotées, II. Valentiner, 465
 Lory (C. A.), Electrical Thermostat, 528
 Lowe (Dr. E. J., F.R.S.), Death and Obituary Notice of, 498
 Lowerison (Harry), Field and Folklore, 102
 Lownds (L.), Reflection and Transmission of Electric Waves along Wires, 334
 Loyez (Marie), Ovarian Follicle of Reptiles, 287
 Lucas (W. J.), British Dragon Flies, 418
 Lucet (M.), a New Pathogenic *Mucor*, 192
 Luff (Dr. Arthur P.), a Manual of Chemistry, Inorganic and Organic, 442
 Lukchun Depression (Central Asia), the, General Tillo, 328
 Luke (W. G.), the Rolling of Ships, 371
 Lunge (Prof. G.), Impending Changes in the General Development of Industry, and particularly in the Alkali Industry, 92
 Lupins : the Culture of White Lupins, P. P. Dehéraïn and C. Demoussy, 287 ; Culture of Blue Lupins, P. P. Dehéraïn and E. Demoussy, 435
 Luther (Dr. C. T. R.), Death of, 449 ; Obituary Notice of, 473
 Lynn (W. T.), Difficulties of the Calendar, 493
 Lyra, Central Star of Ring Nebula in, W. Strattonoff, 260
 MacBride (Prof. T. H.), the North American Slime Moulds, 173
 McClelland (J. A.), Conductivity of Gas near Incandescent Wire, 95
 McConnell (F. V.), Zoology of Mt. Roraima, 406
 McCormick (L. J.), Death and Obituary Notice of, 476
 McDougall (Alexander), Death of, 84
 McDougall (A.), Production of Nitric Acid from Air by Electric Flame, 507
 MacDowall (Alex. B.), Compensation in Weather, 295 ; a Curious Fact about London Summers, 627
 Macfadyen (Dr. Allan), on the Influence of Temperature of Liquid Air on Bacteria, 529, 603
 McGee (Prof. W. J.), Primitive Mathematics, 259
 Macgregor (Prof. J. G.), the Utility of Knowledge-making as a Means of Liberal Training, 159
 MacIver (D.), on Recent Anthropometrical Work in Egypt, 43
 Mack (K.), Strains in Rupert's Drops, 262
 McKendrick (Dr. J. S.), the Zymolysis of Tissues, 238
 Maclagan (Sir A. D.), Death and Obituary Notice of, 571
 Maclagan (Dr. W. C.), Heather Beer and Birch Ale, 286
 Maclean (Prof. M.), Effects of Strain on Thermo-electric Qualities of Metals, 481
 McMahon (Lieut.-General C. A., F.R.S.), Geology of Gilgit, 530
 McMurtrie (Kenneth), an Interesting Case of Resonance, 445
 Maercker (Prof.), Progress of Agricultural Chemistry, 116
 Magnetism : Some Remarks on Radiation Phenomena in a Magnetic Field, Prof. Thomas Preston, F.R.S., 11 ; Influence of Magnetic Field on Radiation of Radio-active Bodies, H. Becquerel, 192 ; Magnetic Properties of Iron and Aluminum Alloys, Dr. S. W. Richardson, 23 ; Magnetic Properties of Aluminium, Nickel and Tungsten Steels, Prof. Barrett, 23 ; Spasms in Earth's Magnetic Force, Dr. W. van Bemmelen, 72 ; Magnetism and Electricity, J. Paley Yorke, 102 ; Magnetism and Electricity for Beginners, H. E. Hadley, 200 ; Magnetic Deflection of Cathode Rays, E. Wiechert, 262 ; Magnetic Deflection of Becquerel Rays, F. Giesel, 262 ; Action of Magnetic Field on Becquerel Rays, P. Curie, 287 ; Penetration of Becquerel Rays which are not deviated in Magnetic Field, Mme. Curie, 287 ; Hall Phenomenon and Thermomagnetic Currents, G. Moreau, 311 ; Radium and Polonium Rays in Magnetic Field, Henri Becquerel, 355 ; Dispersion of Radium Rays in Magnetic Field, Henri Becquerel, 407 ; Polarised Light in Magnetic Field, R. Dongier, 360 ; the Eddy Compass, 398 ; Cause of the Hall Effect, G. Moreau, 407 ; Asymmetrical Change in Spectral Lines of Iron radiating in Magnetic Field, Dr. P. Zeeman, 408 ; Magnetic Qualities of Building Brick, G. A. Gage and H. E. Lawrence, 421 ; Magnetic Viscosity, L. R. Laird, 432 ; Instantaneous Disappearance of Rotatory Polarisation, H. Abraham and J. Lemoine, 435 ; Magnetic Disturbances in Isle of Skye, Alfred Harker, 459 ; Magnetic

- Screening, Dr. C. G. Knott, 482 ; Vector Diagrams, Dr. C. Chree, F.R.S., 490 ; Magnetic Space Telegraphy, Syntony, P. E. Shaw, 529 ; Velocity of Propagation of Electromagnetic Waves in Bitumen, C. Gutton, 579
- Mahalanobis (Dr.), a New Myograph, 238
- Maillard (L.), a Crystallised Fibrine, 336
- Mainwaring (General G. B.), the Dictionary of the Lepcha Language, 442
- Maitland (A. G.), Geology of Western Australia, 259
- Makaroff (Admiral), Account of the Trial Trip of the great Russian Ice-breaker *Yermak*, 17
- Malaria : Report of the Malaria Expedition to Sierra Leone, 614 ; Mosquitoes and Malaria, Dr. R. Hanitsch, 177 ; Major Ronald Ross, 522
- Malay Peninsula, Peripatus in the, Dr. R. Horst, 31
- Mallet (F. R.), Sulphates of Form $R_2SO_4 \cdot 2MSO_4$, 190
- Mallock (A.), Interference Curves depending on Perspective, 29
- Mammalia : Significance of Increased Size of Cerebrum in Recent as compared with Extinct Mammalia, Prof. E. R. Lankester, F.R.S., 624
- Man in California, the Evidence as to Auriferous Gravel, W. H. Holmes, 206
- Man, the Microcosm, Leonard Hall, 6
- Man, the Races of, an Outline of Anthropology and Ethnography, J. Deniker, Prof. A. C. Haddon, F.R.S., 462
- Manchester Literary and Philosophical Society, 47, 70, 95, 143, 286, 358, 383, 435, 507, 579 ; Prize Awards, 397
- Mangabeira Rubber, 38
- Manley (J. J.), Optical Method of Determining Density of Seawater, 286
- Manora Observatory, Planetary Work at the, 574
- Mantlerol (Prof. R.), Longevity and Mental Work, 400
- Manual Training : Woodwork. The New Education, Richard Wake, 53
- Maples (Chauncy, D.D.), late Bishop of Likoma, Lake Nyasa, Journals and Papers of, 294
- Maquegne (Prof. L.), Les Sucres et leurs Principaux Dérivés, 461
- Marble, Specific Heat of, Prof. B. O. Peirce and Robert W. Willson, 367
- Marcet (Dr. William, F.R.S.), Death of, 475 ; Obituary Notice of, Dr. F. W. Tunnicliffe, 497
- Marconi (G.), Wireless Telegraphy, 377
- Marconi's Wireless Telegraphy in U.S.A., 185 ; in the War, 350
- Marett (R. R.), on Pre-animistic Religion, 44
- Marie (Ch.), Estimation of Phosphorus in Organic Compounds, 96 ; Electrolytic Estimation of Lead in Lead Sulphate and Chromate, 604
- Marine Biology : The Stockholm Fisheries Conference on the Exploration of the Sea, 34 ; E. J. Allen, 54, 227, 275 ; Prof. W. A. Herdman, F.R.S., 78, 177 ; Geo. Murray, F.R.S., 102 ; H. M. Kyle, 151 ; Prof. Otto Pettersson, 413 ; Some Recent Work of the Marine Biological Association, 79 ; Liverpool Marine Biology Committee's Memoirs, I. Ascidia, Prof. W. A. Herdman, F.R.S., 126 ; a Great Salt Lake Problem, 204 : Medusa of *Millepora*, S. J. Hickson, F.R.S., 213 ; the Structure of Porites, H. M. Bernard, 213 ; Biological Lectures from the Marine Biological Laboratory, Woods Hole, Massachusetts, 1898, 244 ; Ancestry of *Heliozoa* (the Blue Coral), J. W. Gregory, 311, 555 ; Trawling in Pacific, A. Agassiz, 529 ; Report of the Marine Biologist for the Year 1898. Cape of Good Hope Department of Agriculture, E. J. Allen, 562
- Marine Zoology in Australia, Prof. W. A. Herdman, F.R.S., 590
- Marion (M.), Death of, 302 ; Obituary Notice of, 352
- Maritime Meteorology : Grundlinien der Maritimen Meteorologie, W. Köppen, 101
- Maronneau (G.), Phosphides of Iron, Nickel, Cobalt, and Chromium, 483
- Marr (John E., F.R.S.), the Scientific Study of Scenery, 441
- Marriages of the Deaf in America, Edward Allen Fay, Dr. Macleod Yearsley, 97
- Marron (Auguste), Life and Happiness, 365
- Marsh (J. E.), Action of Sulphuric Acid on Fenchone, 94
- Marshall (E. S.), Flora of Kent, 489
- Marshall (Dr. Hugh), Action of Silver Salts on Solution of Ammonium Persulphate, 483
- Marsupials, Embryology of, J. P. Hill, 400
- Martel (E. A.), Deepest known Natural Well, 192
- Martin (Geoffrey), Life under other Conditions, 452
- Mason (Dr. O. T.), Aboriginal Stone-work in Porto Rico, 40
- Maspero (G.), the Passing of the Empires, 361
- Masse (George), Origin of Basidiomycetes, 358
- Masselin (E. J.), Outlines of Bacteriology, 221
- Massey (Wm. H.), the Fitting of the Cycle to its Rider, 391
- Massoulier (P.), Relations between Electrolytic Conductivity and Internal Friction of Saline Solutions, 531
- Masters (Dr. Maxwell T., F.R.S.), List of Published Names of Plants introduced to Cultivation, 1876-1896. Kew Bulletin of Miscellaneous Information, 537 ; Handbook of Tender Dicotyledons Cultivated in the Royal Gardens, Kew, 537
- Materia Medica : an Introduction to the Study of, Henry G. Greenish, 174 ; Atlas de Photomicrographie des Plantes Médicinales, Drs. Braemar et Suis, 539
- Materials, the Strength of, Prof. J. A. Ewing, F.R.S., 197
- Mathematics : Interference Curves depending on Perspective, A. Mallock, 29 ; American Journal of Mathematics, 46, 457 ; Elementary Practical Mathematics, Frank Castle, 53 ; Solution of the Quartic, Prof. G. B. Mathews, F.R.S., 55 ; Mass of Cubic Decimetre of Water, MM. Fabry, Lepinay and Pétot, 71 ; Death and Obituary Notice of Prof. Francis Guthrie, 84 ; Bulletin of the American Mathematical Society, 93, 213, 404, 554, 577 ; Transactions of, 504 ; Mathematical Society, 94, 280, 434, 579 ; Practical Plane and Solid Geometry, J. Harrison and G. A. Baxandall, 101 ; the Proposed Changes in the Cambridge Mathematical Tripos, 106 ; Prof. G. H. Bryan, F.R.S., 346 ; Edinburgh Mathematical Society, 166, 286, 435, 507 ; Valve Motions of Engines, Prof. John Perry, F.R.S., 152 ; the Spinning-top, Lord Kelvin, 166 ; the Prismoidal Formula, G. H. Knibbs, 167 ; Applications of Hamilton's Operator ∇ in Calculus of Variations, Prof. C. J. Joly, 191 ; Primitive Mathematics, L. Frobenius, 259 ; Prof. W. J. McGee, 259 ; Death of J. B. Stallo, 279 ; Exercices d'Arithmétique, G. G. Chevrel and J. Fitz-Patrick, 314 ; the Etruscan Numerals, E. E. Lattes, 371 ; Studies in Integrals, Rev. W. R. W. Roberts, 383 ; W. F. Sheppard, 459 ; Abhandlung der Dynamik, D'Alembert, 390 ; Ueber die Mathematische Theorie der Elektrodynamischen Induction, Ricardo Felici, 390 ; the Simply Transitive Primitive Groups, Dr. G. A. Miller, 404 ; Place of Ausdehnungslehre in Algebra of Quaternions, Prof. C. J. Joly, 407 ; Billiards Mathematically Treated, G. W. Hemming, 410, 468 ; S. H. Burbury, F.R.S., 410 ; Death of Prof. E. Beltrami, 449 ; Obituary Notice of, Prof. G. H. Bryan, F.R.S., 568 ; Vector Diagrams, Dr. C. Chree, F.R.S., 490 ; Mathematical Contributions to Theory of Evolution, VIII., Karl Pearson, 505 ; Histoire des Mathématiques, J. Boyer, 510 ; Death of Joseph Bertrand, 544 ; Obituary Notice of, Prof. G. H. Bryan, F.R.S., 614 ; Cyclical Quartic Surfaces in Space of n dimensions, Dr. V. Snyder, 554 ; Proof of Galois Field of Order ρ^n for every integer n and prime number ρ , Prof. Dickson, 554 ; the Chief Theorem of Lie's Theory of Continuous Groups, 572 ; Equation-solving Machine, Georges Meslin, 579 ; Practical Mathematics, by Prof. John Perry, F.R.S., Prof. A. G. Greenhill, F.R.S., 582 ; Death and Obituary Notice of J. J. Walker, F.R.S., 618
- Mather (Mr.), Use of Price's Guard Wire in Insulator Tests, 334
- Mathew (John), Eaglehawk and Crow : a Study of the Australian Aborigines, including an Inquiry into their Origin and a Survey of Australian Languages, 193
- Matruchot (L.), Effect of Cold on Plant-nuclei, 531
- Matthews and Goode (Messrs.), on the Admiralty Harbour Works at Dover, 20
- Maudslay (Anne Carey and Alfred Percival), a Glimpse of Guatemala and Some Notes on the Ancient Monuments of Central America, 292
- Mauritius, Meteorology in, 303
- Mawley (E.), Phenological Observations for 1899, 434
- Maycock (W. Perren), Electric Wiring, Fittings, Switches and Lamps, 562
- Mazé (M.), Digestion of Reserves in Seeds during Germination, 407
- Mead (C. E.), *Collops* Beetle feeding on Larva of Colorado Potato-beetle, 328
- Measures, International Committee of Weights and, 350

- Measures (Dr. J. W.), the Zeiss Photo-micrographic and Projection Apparatus, 506
- Measuring Small Diameters, Interference Method of, M. Maurice Hamy, 402
- Mechanics : Institution of Mechanical Engineers, 14 ; Resistance of Certain Forms of Shafting to Torsion, and effect of Keyways thereon, L. N. G. Filon, 93 ; A Friction Dynamometer, Prof. W. E. Dalby, 165 ; the Strength of Materials, Prof. J. A. Ewing, F.R.S., 197 ; Newton's Laws of Motion, Prof. P. G. Tait, 265 ; the Torsional Constants of Iron and Steel, Dr. Peddie, 359 ; a Simple Proof of Gibbs' Phase Rule, Prof. Kuenen, 359 ; Apparatus for Measuring Extension of Wires, G. F. C. Searle, 459 ; Law of Elastic Fatigue, Dr. W. Peddie, 482 ; Impact, J. H. Vincent, 507
- Medd (John C.), Rural Education, 55
- Median Value of a System of Normal Variants from Two of its Centiles. A Geometric Determination of the, Dr. Francis Galton, F.R.S., 102
- Medicine : Justus von Liebig and Medical Science, Prof. Klempner, 63 ; an Introduction to the Study of *Materia Medica*, Henry G. Greenish, 174 ; Death and Obituary Notice of Sir Richard Thorne Thorne, K.C.B., F.R.S., 183 ; the Relation between Science and Medicine, Sir J. Burdon-Sanderson, Bart., 254 ; *Dictionnaire des Termes de Médecine, Français-Anglais*, H. de Méric, 270 ; Death and Obituary Notice of Sir T. G. Stewart, 352 ; Death and Obituary Notice of Dr. William Marct, F.R.S., Dr. F. W. Tunnicliffe, 497 ; a System of Medicine by many Writers, Edited by Prof. T. C. Allbutt, F.R.S., Dr. F. W. Tunnicliffe, 584 ; Death and Obituary Notice of Sir William Priestley, 593
- Mediterranean Fauna, Dr. W. Kobelt and the Prof. Henry H. Giglioli, 227 ; the Reviewer, 227
- Meduse of *Millepora*, S. J. Hickson, F.R.S., 213
- Meer (Arthur), the Heavens at a Glance, 62
- Melbourne Meeting of the Australasian Association, the, 494
- Meldola (Prof. R., F.R.S.), Rural Education, 55 ; the Letters of Faraday and Schönbein 1836-1862, with Notes, Comments, and References to Contemporary Letters, 337 ; *Les Sucres et leurs principaux Dérivés*, Prof. L. Maquenne, 461
- Melle (M. van), New Theory of Smells, 240
- Melvill (J. C.), Mollusca of Kolgve and Franz Josef Land, 143
- Memoirs of Novorossian Society, 262
- Memoirs of St. Petersburg University Society of Naturalists, 285
- Memory Image, Relative Fidelity of, Dr. I. M. Bentley, 60
- Mental Work and Longevity, Prof. R. Manterola, 400
- Menzies (A. W. C.), Electric Thermostat, 482
- Mercury in New South Wales, 15
- Mercury Jet Interrupters, 421 ; S. M. Kintner, 590
- Mercury as a Naked Eye Object, W. F. Denning, 431
- Mercury, Photometric Observations of during Solar Eclipses, Dr. G. Müller, 574
- Mercury and Jupiter as Morning Stars, 137
- Méric (H. de), *Dictionnaire des Termes de Médecine, Français-Anglais*, 270
- Meridian of Universal Time, 158
- Merogenic Impregnation, Yves Delage, 24
- Merriman (Prof. Mansfield), Elements of Precise Surveying and Geodesy, 77
- Meslin (Georges), Equation-solving Machine, 579
- Mesoplodon, the Rostrum of, Dr. Henry O. Forbes, 490
- Metal, Theory and Practice of Art Enamelling upon, Henry Cunyngham, 466
- Metal Work as a Form of Manual Instruction in Schools, Prof. W. Ripper, 356
- Metallurgy : Metallurgy of Lead and Silver, Henry F. Collins, 198 ; Handbook of Metallurgy, Dr. Carl Schnabel, W. C. Roberts-Austen, K.C.B., F.R.S., 199 ; Armour Plates, R. A. Hadfield, 301 ; Improvements in Production of Electrolytic Copper, S. Cowper-Coles, 371 ; Death and Obituary Notice of Prof. S. Jordan, 518 ; Iron-smelting by Electricity, 618
- Meteorology : a Photograph of Clouds, Lieut.-General Tenant, 14 ; Weather Averages in British Isles for September quarter, 1866-99, 15 ; Meteorological Extremes, II, Temperature, G. J. Symons, 22 ; Symons's Monthly Magazine, 22, 238, 310, 457, 627 ; Cape of Good Hope Meteorological Report, 1898, 39 ; Suggestions for Diagrammatical Depiction of Seasons of Drought and Rainfall, H. Deane, 47 ; the Effect of Weather on Every-day Life, Edwin Grant Dexter, 56 ; Barisal Guns and Earthquakes, Prof. A. Issel, 60 ; Barisal Guns, Henry S. Schurr, 127 ; March Weather in United States, O. L. Fassig, 93 ; Results of International Work for U.S.A., F. H. Bigelow, 190 ; Grundlinien der Maritimen Meteorologie, W. Küppen, 101 ; the West Indian Hurricane of August 7-14, 1899, Prof. E. B. Garrott, 112 ; Hurricane Tracks, 1890-9, 112 ; Diurnal Variation of Barometer in British Isles, R. H. Curtis, 119 ; Meteorological Society, 119, 214, 311, 434, 555 ; the Diurnal Variations of Atmospheric Electricity, A. B. Chauveau, 136 ; Current Papers, H. C. Russell, F.R.S., 167 ; Atlas of Meteorology, J. G. Bartholomew and A. J. Herbertson, 171 ; Meteorology at the Berlin Geographical Congress, A. Lawrence Rotch, 177 ; the Writer of the Report, 177 ; Scientific Weather Prediction for Agricultural Purposes, Dr. van Bebber, 185 ; Aerolites, H. L. Ward, 190 ; W. M. Foote, 190 ; the Wind during Eclipses of the Sun, 200 ; A. L. Rotch, 589 ; Remarkable Marine Dust Haze, Dr. R. H. Scott, F.R.S., 214 ; Wire Fencing and Lightning, F. J. Brodie, 257 ; Solar Halos, 279 ; Compensation in Weather, Alex. B. MacDowall, 295 ; Indian Tidal Forecasts, 303 ; Report of Mauritius Observatory, 303 ; Low Barometric Pressure on December 29, 1899, 310 ; Severe Frost in December 1899, 311 ; Rainfall and Temperature of 1899, 353 ; Die Orkane des Fernen Ostens, Dr. Paul Bergholtz, 317 ; the Lukchun (Central Asia) Depression, General Tillo, 328 ; Report of Meteorological Council, 328 ; Drunkenness and the Weather, Prof. Edwin Dexter, 365 ; Kite Observations of 1898, H. C. Frankenfelds, 371 ; the Air Movement at Simla and in the Western Himalayas, 380 ; Death and Obituary Notice of Prof. H. A. Hazen, 398 ; Recent Floods in England, 398 ; Diurnal Rain-range, 1871-1890, Dr. R. H. Scott, 399 ; Mean Temperature of Sea-surface Round British Coasts, and its Relation to Air-temperature, 399 ; Present State of Polar Ice, 422 ; Phenological Observations for 1899, E. Mawley, 434 ; Percolation Experiments at Rothamsted, Dr. R. H. Scott, F.R.S., 435 ; Barometric Oscillations of February 13-19, 1899, Joseph Jaubert, 436 ; the Aims and Methods of Meteorological Work especially as Conducted by National and State Weather Services, Cleveland Abbe, 448 ; Hail-prevention by Gun-firing, Dr. J. M. Pernter, 451 ; Remarkable Hailstorm in Cape Colony, O. D. Deacon, 594 ; Climatological Record for British Empire for 1898, 457 ; Death and Obituary Notice of George James Symons, F.R.S., 475 ; Death and Obituary Notice of Dr. E. J. Lowe, F.R.S., 498 ; Fog on Great Lakes, U.S.A., 500 ; Quartz Thermometers, M. Dufour, 521, 531 ; Dynamics of Cyclones, John Aitken, F.R.S., 531 ; Practical Exercises in Elementary Meteorology, Robert De Courcy Ward, 560 ; Jubilee of the Royal Meteorological Society, 565 ; Recent International Balloon Ascents, Dr. H. Hergesell, 572 ; Recent Exploration in Upper Air and its Bearing on Theory of Cyclones, 611 ; Remarkable Secondary Tidal Undulations, W. B. Dawson, 619 ; the High April Temperatures, 620 ; a Curious Fact about London Summers, A. B. MacDowall, 627
- Meteorite of Greek Coast, Capt. G. Neville, 111
- Meteorite, Illinois Gulch, H. L. Preston, 529
- Meteorites, Two New American, H. L. Preston, 626
- Meteors : the Leonid Meteors, 41, 374 ; Dr. G. Johnstone Stoney, F.R.S., 28, 32 ; Dr. A. M. W. Downing, F.R.S., 28 ; W. F. Denning, 81 ; Dr. W. J. S. Lockyer, 132 ; Thos. W. Kingsmill, 491 ; Contemporary Meteor-showers of the Leonid and Bielid Meteor-periods, Prof. A. S. Herschell, F.R.S., 222, 271 ; Supposed Daylight Leonids, W. F. Denning, 152 ; a Daylight Meteor, H. H. P. Bouvierie, 279 ; Rev. R. Hudson, 280 ; a Brilliant Meteor in Sunshine, 306 ; the Andromedae, 61 ; Meteors of Biela's Comet, E. C. Willis, 78 ; W. F. Denning, 78 ; a Brilliant Meteor, Samuel Barber, 326 ; Meteor Photography, 424 ; a Brilliant Fireball, Mr. Crommelin, 548
- Meunier (Louis), Rapid Method for Determining Carbonic Acid in Gaseous Mixtures, 435
- Mexico, Catalogue of a Collection of Objects Illustrating the Folklore of, Prof. Frederick Starr, 488
- Meyer (A. B.), the Birds of Celebes, 605
- Meyer (Prof. E. von), the Colloid Metals, 64
- Meyer (Dr. H.), Determinations of Radicle in Carbon Compounds, 538
- Meyer (Dr. Oskar Emil), the Kinetic Theory of Gases, 289

- Meyer (Richard), Experiments on Condensation of Aromatic Diamines with Dibasic Acids of Oxalic Series, 63
- Michell (Stephen), Mine Drainage, Prof. W. Galloway, 606
- Micrometer, Electrical, P. E. Shaw, 529
- Micro-organism of Faulty Rum, the, V. H. Veley, F.R.S., and Lilian J. Veley, 468
- Microscopy: the Total Depth of Microscopic Objectives, L. E. Ryther, 16; Journal of Royal Microscopical Society, 23, 262, 432, 602; Royal Microscopical Society, 46, 142, 358, 506, 578; Recent Improvements in Microscopy, 46, 142, 578; a New Rocking Microtome, 115; Death of W. T. Suffolk, 256; the Zeiss Photo-micrographic and Projection Apparatus, Dr. J. W. Measures, 506; a Freshwater Chert from Asia Minor, W. T. Haydon, 520; Microscopic Researches on Glycogen, Part ii., Charles Creighton, 586
- Microtome, Rocking, a New, 115
- Middleton (R. E.), a Treatise on Surveying, 150
- Middleton (R. M.), *Asplenium Bradleyi*, 458
- Miers (Prof. H. A., F.R.S.), a Treatise on Crystallography, W. J. Lewis, 485
- Migration, Internal in England and Wales, Prof. A. W. Flux, 383
- Migula (Dr. W.), System der Bakterien, Dr. E. Klein, F.R.S., 464
- Milk-preservation by Aeration, Dr. F. H. Bowman, 507
- Mill (Dr. H. R.), Account of the Cruise of Sir George Newnes' Yacht, *Southern Cross*, from Hobart to Cape Adare, 18; Suggested System of Terminology for the Forms of Sub-oceanic Relief, 19; Geography of South-west Sussex, 353; the Geography of Europe, Geo. G. Chisholm, 368; Temperate Chile, a Progressive Spain, W. Anderson Smith, 536
- Miller (Dr. G. A.), the Simply Transitive Primitive Groups, 404
- Milne-Edwards (Prof. A.), Death of, 617
- Mimicry, Mr. Distant, 235
- Mimicry; the Feather-stars of the Bahamas, Prof. Verrell, 16
- Minakata (Kumagusu), Indian Corn, 392, 515; Crab Ravages in China, 491; Illogically concerning Ghosts, 564
- Mind, Brain in Relation to, Dr. J. Sanderson Christison, 295
- Mine Drainage, Stephen Michell, Prof. W. Galloway, 606
- Mineralogy: Mercury in New South Wales, 15; Iodine in New South Wales Copper Ores, Arthur Dieseldorf, 483; Composition of New South Wales Labradorite and Topazes, G. Harker, 483; Mineralogy of New Brunswick, Dr. L. W. Bailey, 16; New Minerals from Franklin (New Jersey, U.S.A.) Zinc Mines, S. L. Penfield and C. H. Warren, 93; New Mode of Occurrence of Ruby in North Carolina, J. W. Judd and W. E. Hidden, 93; the Colour of Flints, W. H. Wheeler, 106; Florencite, Dr. E. Hussak and G. T. Prior, 119; Jordanite and Rathite, H. Jackson, 119; Mineralogical Society, 119, 382, 579; Stokesite, A. Hutchinson, 119, 215; the Elements of Blowpipe Analysis, Frederick Hutton Getman, 176; Aerolites, H. L. Ward, 190; W. M. Foote, 190; Floating Stones, Dr. Erland Nordenskiöld, 278; Cecil Carus-Wilson, 318; R. C. T. Evans, 318; Prof. A. W. Brightmore, 346; Mineral Wealth of Zoutpansberg, D. S. S. Steuart, 281; the "Rotten Stone" Granite of East Finland, Boris Popoff, 285; Death and Obituary Notice of J. R. Gregory, 302; Graftonite, S. L. Penfield, 310; Origin of Granite, C. E. Stromeyer, 358; Lord Kelvin on the Origin of Granite, A. R. Hunt, 391, 589; Death of Prof. Thomas Eggleston, 370; Beudantite, E. G. J. Hartley, 382; the Life of James Dwight Dana, Scientific Explorer, Mineralogist, Geologist, Zoologist, Professor in Yale University, Daniel C. Gilman, Prof. John W. Judd, C. B., F.R.S., 409; Mineral Production in India, 500; a Fresh-water Chert from Asia Minor, W. T. Haydon, 520; Illinois Gulch Meteorite, H. L. Preston, 529; Mineral Production of Canada in 1899, E. D. Ingall, 545; the Hamlinite Group, G. T. Prior, 579; Mineral Industries of the World, Prof. Le Neve Foster, 594; Notions de Mineralogie, A. F. Renard and F. Stöber, 619; Grandiorite, W. Lindgren, 626; Two New American Meteorites, H. L. Preston, 626
- Minet (Ad.), Analyses Electrolytiques, 5
- Mining: Alaska and the Klondike, Angelo Heilprin, 122; a Rudimentary Treatise on Coal and Coal-mining, Sir Warington W. Smyth, F.R.S., Bennett H. Brough, 411; Mining Engineers' Report Book and Directors' and Shareholders' Guide to Mining Reports, Edwin R. Field, 489
- Minguin (J.), Resolution of Racemic Benzylidene Camphor, 435
- Minor Planet, New (1899 E Z), 187
- Minor Planet (1899 E Y), New, 402; Herr Otto Knopf, 283
- Minor Planet (434) Hungaria, Opposition of, 453
- Mirquet (J.), Science Course for Secondary Schools, 562
- Missionary Anthropology, A. B. Lloyd, 314
- Mistletoe Distribution in Belgium, E. Laurent, 520
- Mitchell (Prof.), Cooling of a Body in Steady Air-blast, 238
- Mivart (Prof. St. George), Death of, 544; Obituary Notice of, 569
- Mixer (W. G.), Products of Explosion of Acetylene, 310
- Mohn (Prof. H.), a Wooden Ball of Unknown Origin, 31
- Moir (J.), Amarine and Isoamarine, 119; Isoamarine, 405
- Moissan (Henri), Action of Fluorine and Hydrofluoric Acid on Glass, 119; Composition of Hydrofluoric Acid by Volume, 459; New Fluoride of Manganese, 478; Magnesium Perfluoride, 483; Sulphur Perfluoride, 579; a Sulphur Fluoride Gas, 596; Density and Analysis of Sulphur Perfluoride, 603
- Molecular Potential Function, the, Dr. G. Bakker, 156
- Molecular Structure of Organised Bodies, F. W. Jones, 273
- Moliard (Marin), Histological Modification produced by Phytopus in Stems, 120; Effect of Cold on Plant-nuclei, 531-2
- Mollusca of Kolguev and Franz Josef Land, J. C. Melvill and R. Standen, 143
- Montserrat (K. W.), Morphology of Carcinomatous Blastomycetes, 285
- Moon, Partial Eclipse of the, December 16, 158
- Moore (T. S.), the Reversibility of Galvanic Cells, 458
- Morality, the Scientific Basis of, Dr. G. Gore, 389
- Morbology: the Diseases of Children, G. Elder and J. S. Fowler, 5; Mosquitoes and Malaria, Dr. R. Hanitsch, 177; Major Ronald Ross, 522; a New Pathogenic Mucor, M. M. Lucet and Constantin, 192; Climatic Conditions of Plague, B. Latham, 214; the African Horse Sickness, Dr. R. Wallace, 235; Morphology of Carcinomatous Blastomycetes, K. W. Montserrat, 285; Liverpool School of Tropical Diseases, 342; Bacterial Origin of Scurvy, Prof. A. M. Lévin, 402; Atmospheric Electricity and Disease, Dr. Schliep, Prof. John Perry, F.R.S., 471; the Emerods of the Bible Bubonic Plague, Drs. F. Tidswell and J. A. Dick, 501; New Pathogenic Microbe in Rabbit, C. Phisalix, 580; Oysters and Disease, Profs. W. A. Herdman, F.R.S., and R. Boyce, 587
- Moreau (M.), Preparation of Carbazides, 239
- Moreau (G.), Cause of the Hall Effect, 407
- Morphology: Origin of Paired Limbs of Vertebrates, J. G. Kerr, 166; Symmetry and Asymmetry in Animals, Dr. L. Reh, 186; Experimental Morphology, Charles Benedict Davenport, 218; Morphology of Carcinomatous Blastomycetes, K. W. Montserrat, 285; Pneumaticity of Olfactory Region of Mammalian Skull, Dr. S. Paulli, 354; Les Étres Vivants, Paul Busquet, 609
- Morris (E. F.), Criticisms on Modern Theory of Solutions, 435
- Morton (G. H.), Death and Obituary Notice of, 571
- Morton (W. B.), on the Carriers in the Kathode Rays, 365
- Mosasaur's Skeleton, a complete, and a Skeleton of Diplodocus, H. F. Osborn, 534
- Mosquitoes and Malaria, Dr. R. Hanitsch, 177; Major Ronald Ross, 522
- Mossman (R. C.), the Price of Wheat at Haddington, 1627-1897, 519
- Mosso (Prof. U.), Sugar as Heat Producer in Fasting Animals, 476
- Motion, Newton's Laws of, Prof. P. G. Tait, 265
- Motive Power, Steam Turbines, High Speed Navigation, Hon. C. A. Parsons, F.R.S., 424
- Moulton (F. R.), Dynamical Criticism of Nebular Hypothesis, 597
- Mountain Formation, Mechanical Theory of, Marcel Bertrand, 383
- Mountains, a Book on, Die hochgebirge der Erde, Robert von Ledenfeld, Prof. T. G. Bonney, F.R.S., 219
- Moureau (G.), Hall Phenomenon and Thermomagnetic Currents, 311
- Muir (James), the Utility of Sulphate of Ammonia in Agriculture, 101
- Muir (M. M. Pattison-), the Story of the Wanderings of Atoms, especially those of Carbon, 126
- Müller (Dr. G.), Die Photometrie der Gestirne, 509; Photometric Observations of Mercury during Solar Eclipses, 574
- Munich, the Conference of German Men of Science at, 62

- Muret-Sander's Encyclopædic English-German and German-English Dictionary, 610
- Murray (George, F.R.S.), Antarctic Exploration, 19; Cocco-spheres and Rhabdospheres, 54; the Stockholm Conference on the Exploration of the Sea, 102
- Murray (Sir John), Atlantic Deep-sea Soundings, 286
- Museums, Ethnographical, 154
- Myers (C. S.), on Savage Music in Murray Island and Sarawak, 42
- Myograph, a New, Dr. Mahalanobis, 238
- Myres (John), a Catalogue of the Cyprus Museum, with a Chronicle of Excavations undertaken since the British Occupation, and Introductory Notes on Cypriote Archaeology, 195
- Mythology, Babylonian Religion and, L. W. King, Frank Rede Fowke, 437
- Naked Eye Object, Mercury as a, W. F. Denning, 431
- Nansen (Dr. F.), the Scientific Results of the Polar Expedition, 62
- Naphthalin, Crystallised, and its Refractive Properties, Prof. S. P. Thompson, 165
- Nasini (R.), New Lines in Infra-red Spectrum of Argon, 235
- Natural and Artificial Methods of Ventilation, 6
- Natural History: Death and Obituary Notice of Grant Allen, 13; Natural Objects in Old Spanish Sculpture, Dr. E. S. Fatigati, 15; Beasts: Thumbnail Studies in Pets, Wardlaw Kennedy, 28; Peripatus in the Malay Peninsula, Dr. R. Horst, 31; Anales del Museo Nacional de Buenos Aires, 46, 372; the Cambridge Natural History, David Sharp, W. F. H. Blandford, 49; Birds Capturing Butterflies, F. Finn, 55; Oswald H. Latter, 56; Howard Fox, 152; Geo. A. Soper, 491; Types of British Animals, F. G. Aflalo, 77; Field and Folk Lore, Harry Lowerison, 102; Animals and Poisonous Plants, J. E. Harting, 142; Can Ants Hear? Mr. Weld, 157; Recent Changes in Fauna of Jamaica, Mr. Duerden, 157; the Essex Naturalist, the Journal of the Essex Field Club, 245; the Boyhood of a Naturalist, Fred. Smith, 246; Memoirs of Novorossian Society, 262; Memoirs of St. Petersburg University Society of Naturalists, 285; Death of M. Marion, 302; Obituary Notice of, 352; Beyond Petersora Eastward: Two Summer Voyages to Novaya Zemlya and the Islands of Barents Sea, H. J. Pearson, 348; an Egg-hatching Rabbit, 423; Colour-phases of Weasel, Mr. Barrett-Hamilton, 451; the Rostrum of Mesoplodon, Dr. Henry O. Forbes, 490; the Natural History Museum—a Correction, G. S. Brady, 540; Death and Obituary Notice of Canon J. C. Atkinson, 544; a Book on Whales, F. E. Beddard, F.R.S., 585; Death of Prof. A. Milne-Edwards, 617
- Natural Philosophy, Elements of, Alfred Earl, 125
- Natural Selection, Physiology *versus*, an Unnatural Antithesis, 217
- Naturalist in Chile, a, W. Anderson Smith, Dr. Hugh Robert Mill, 536
- Nature, Colour in, a Study in Biology, Marion I. Newbiggin, 217
- Nature Study in Rural Schools, 553
- Nautical Almanac, Day Numbers of, 208
- Naval Architecture: Armour Plates, R. A. Hadfield, 301
- Naval Observatory, United States, 330
- Naval Pioneers of Australia, the, Louis Becke, Walter Jeffery, 53
- Navigation: Under-currents, Rear-Admiral W. J. L. Wharton, K.C.B., F.R.S., 29; the Soudan Canal, 40; the Holland Submarine Boat, 135; Blaikie's "Cosmoplane," 359; the Rolling of Ships, W. J. Luke, 371; Motive Power, Steam Turbines, High Speed Navigation, Hon. C. A. Parsons, F.R.S., 424
- Nebula, Ring, in Lyra, Central Star of, W. Strattonoff, 260
- Nebulae, Spiral Predominance of, Prof. J. E. Keeler, 87
- Nebulae: Variations in the Spectrum of Orion Nebula, Prof. Scheiner, 114
- Nehring (Dr.), the Pomeranian Aurochs Horn, 400
- Nenci (Prof. Tito), I. Bachia da Seta, 77
- Neptune, Occultation of, 62, 158, 453
- Nerves, the Development of Ganglion Cells and, N. Gorowitsch, 158
- Nettle Fibre for Yarns and Tissues, the Use of, 257
- Neuburgher (M.), Petroleum in Algeria, 618
- Neville (F. H., F.R.S.), Gold Aluminium Alloys, 357
- Neville (Capt. G.), Meteorite off Greek Coast, 111
- New Brunswick, Mineralogy of, Dr. L. W. Bailey, 16
- New South Wales, Mercury in, 15
- New South Wales Royal Society, 47, 167, 483
- New York Zoological Park, the, 111, 303
- New Zealand: the Student's Flora of New Zealand and the Outlying Islands, Thomas Kirk; W. Botting Hemsley, F.R.S., 146; the New Zealand Zoological Region, H. Farquhar, 246; Is New Zealand a Zoological Region? Dr. Alfred R. Wallace, F.R.S., 273; Prof. Alfred Newton, F.R.S., 295; Charles Hedley, 589; the Coccidae of New Zealand, Prof. T. D. A. Cockerell, 367; a New Peripatus from, Prof. Arthur Dendy, 444; Fertilisation of Flowers in New Zealand, Geo. M. Thomson, 564; the Takahē (*Notornis hochstetteri*), Prof. W. B. Benham, 576; List of the Genera and Species of New Zealand Plants, A. Hamilton, W. Botting Hemsley, F.R.S., 146
- Newbiggin (Marion I.), Colour in Nature: a Study in Biology, 217
- Newstead (Robert), General Index, by Curator of the Grosvenor Museum, Chester, to Annual Reports of Observations of Injurious Insects, 1877-1898, Eleanor A. Ormerod, 126
- Newth (G. S.), Liquefaction of a Gas by "Self-Cooling," 627
- Newton (Prof. Alfred, F.R.S.), Is New Zealand a Zoological Region? 295
- Newton's Laws of Motion, Prof. P. G. Tait, 265
- Niagara Electrical Power Station, the, 85
- Nicaragua, the Level of Lake, Prof. A. Heilprin, 451
- Nicati (W.), Mechanism of Blood Pressure in Ocular Capillaries, 192
- Nicati (Dr. W.), La Philosophie Naturelle, 199
- Niclausse Water-tube Boiler, Mark Robinson on the, 21
- Nicloux (Maurice), Alcohol in Blood of Mother and Foetus, 556
- Nicol Prisms, Large, C. D. Ahrens, 31
- Nile Delta, on Desert Sand-dunes Bordering the, Vaughan Cornish, 20, 403
- Nile Valley, Flint Implements from, 597
- Nordenskiöld (Baron A. E.), Minerals containing Rare Earths, 603
- Nordenskiöld (Dr. Erland), Floating Stones, 278
- Normal Variants, a Geometric Determination of the Median Value of a System of, from Two of its Centiles, Dr. Francis Galton, F.R.S., 102
- Norris (Mr.), the Homogeneity of Tellurium, 402
- North American Geology, 600
- North American Slime Moulds, the, Prof. T. H. MacBride, 173
- Northumberland Sea Fisheries, Report of Committee for 1899, 354
- Northwich, Pontoon-based Swing Bridges at, 135, 327
- Norway, Salmon Hatching in, 39
- Nova Scotia, Inaugural Address delivered at the Opening of the Fortieth Session of Dalhousie College, Halifax, Prof. J. G. Macgregor, 159
- November Meteors: the Coming Meteor Shower, 41
- November Meteors, the, Dr. W. J. S. Lockyer, 132
- Novorossian Society, Memoirs of, 262
- Nuttall (Dr. G. H. F.), Insects as Carriers of Disease, 153
- Observatories: Position of Perth Observatory, W. E. Cooke, 114; United States Naval Observatory, 330; Harvard College Observatory, 402; the New Odessa Observatory, 454; Companion to the Observatory, 187
- Oceanography: Dr. Gerhard Schott on the Chief Results of the Voyage of the *Valdivia*, 19; Observations of Temperature of Water and Air round the British Islands, H. R. Dickson, 19; Temperature and Salinity of the Surface Water of the North Atlantic during 1896 and 1897, H. N. Dickson, 19; Suggested System of Terminology for the Forms of Sub-oceanic Relief, Dr. H. R. Mill, 19; Under-currents, Rear-Admiral W. J. L. Wharton, K.C.B., F.R.S., 29; Results of Recent Soundings in the Pacific, Prof. Alexander Agassiz, 211
- Occultation, the Computation of, 355
- Occultation of Neptune, 62, 158, 453
- Odessa Observatory, the New, 454
- Ogawa (Masataka), Ammonium Amidosulphites, 434; Products obtained by Heating Ammonium Sulphite, Thiosulphate and Tritionate, 434
- Ohnfalsch-Richter (Max), a Catalogue of the Cyprus Museum,

- with a Chronicle of Excavations undertaken since the British Occupation, and Introductory Notes on Cypriote Archaeology, 195
Olbers (Wilhelm), sein Leben und seine Werke, Dr. J. L. E. Dreyer, 486
Oldham (R. D.), the Propagation of Earthquake Motion to Great Distances, 595
Omori (Prof.), Seismology in Japan, 282; the Great Japanese Earthquake of 1891, 619; Earthquake Measurement in Brick Buildings, 619
Ophir, the Situation of, Dr. Carl Peters, 203
Opposition of Minor Planet (434) Hungaria, 453
Ophthalmology, Handbook of Optics for Students of, Prof. William Norwood Suter, 149
Optics: Interference Curves depending on Perspective, A. Mallock, 29; Sextant Telescopes, W. E. Plummer, 54; Kinematical Theory of Light-propagation, M. Sagnac, 136; Handbook of Optics for Students of Ophthalmology, Prof. William Norwood Suter, 149; Optics: a Manual for Students, A. S. Percival, 149; Obliquely crossed Cylindrical Lenses, Prof. S. P. Thompson, 164; Exact Formula for Lenses, T. H. Blakesley, 165; Crystalline Naphthaline and its Refractive Properties, Prof. S. P. Thompson, 165; Die Optischen Instrumente der Firma R. Fuess deren Beschreibung, Justierung, und Anwendung, C. Leiss, 241; Strains in Ruper's Drops, K. Mack, 262; Optical Activity and Chemical Composition, Dr. H. Landolt, 269; Optical Method of determining Density of Sea-water, J. J. Manley, 286; Nature of White Light, E. Carvallo, 287; Modern Lighthouse Apparatus, Dr. J. A. Purves, 393; Diffuse Reflection of Light, H. Wright, 432; Monochromatic Vision, Sir W. de W. Abney, 433; Rock-salt as a Refraction Standard, Prof. S. P. Langley, 545-6; the Wastefulness of Artificial Lights, C. G. Abbot, 546; Reflective Power of Metals, E. Hagen and H. Rubens, 555; Absorption of Light in Electrically Glowing Gases, M. Cantor, 626; Effect of Ultra-violet Light upon Gaseous Bodies, P. Lenard, 627
Orbit, Definitive, of Comet 1897, III., Herr E. Wessel, 374
Orbit of Eros, 236
Orbit of Fifth Satellite of Jupiter, Prof. E. E. Barnard, 157
Orbits of Spectroscopic Doubles, Computation of, Dr. K. Schwarzschild, 521
Ordnance Survey, Progress of the Work of the, during the last Twelve Years, Col. Sir John Farquharson, 20
Organic Evolution, a First Book in, Dr. D. Kerfoot Shute, 488
Organised Bodies, Molecular Structure of, F. W. Jones, 273
Organisms, the Growth of Animal and Vegetable, Charles Benedict Davenport, 218
Orgler (A.), Spark potential in Gases, 432
Oriental History from B.C. 850 to B.C. 330, 361
Origin of Granite, C. E. Stromeier, 358; Lord Kelvin on the Origin of Granite, A. R. Hunt, 391, 589
Orion Nebula, Variations in the Spectra of, Prof. Scheiner, 114
Ormerod (Eleanor A.), General Index, by Robert Newstead, F.E.S., Curator of the Grosvenor Museum, Chester, to Annual Reports of Observations of Injurious Insects, 1877-1898, 126
Ornithology: a Hand-list of the Genera and Species of Birds, R. Bowdler Sharpe, 126; Birds Capturing Butterflies, F. Finn, 55; Oswald H. Latter, 56; Howard Fox, 152; George A. Soper, 491; Death and Obituary Notice of A. C. Stark, 155; Sailing Birds dependent on Wave-power, L. Hargrave, 167; Obituary Notice of Dr. Elliott Coues, 278; Our Rarer British Breeding Birds, their Nests, Eggs, and Summer Haunts, R. Kearton, 323; the Birds of Rhode Island, R. H. Howe, jun., and E. Sturtevant, 323; the Birds of Eastern North America, Water Birds, C. B. Cory, 323; the Fauna of South Africa: Birds, A. C. Stark, 516; the Birds of Africa, comprising all the Species which occur in the Ethiopian Region, G. F. Shelley, 516; Extirpation of a Species of Humming-bird by Hurricane, T. D. Pigott, 545; the Takahé (*Notornis hochstetteri*), Prof. W. B. Benham, 576; the Birds of Celebes, A. B. Meyer and L. W. Wiglesworth, 605; Albinism and Melanism in Australasian Birds, R. Hall, 620
Orton (Dr. Edward), Death of, 38; Obituary Notice of, 59
Osborn (G.), Elementary Algebra, 200
Osborn (Prof. H. F.), the Mounting of Bones of Extinct Mammals, 499; a Complete Mosasaur's Skeleton and a Skeleton of Diplodocus, 534
Oscillations Electriques, Recherches Expérimentales sur les, A. Turpaine, 268
Osteology, the Mounting of Bones of Extinct Mammals, Prof. H. F. Osborn, 499
Ostwald (Prof.), Periodic Changes in Rate of Reaction, 65
Ostwald's Dilution Law, New Formula for, Dr. W. D. Bancroft, 303
Outlines of Bacteriology, Dr. L. H. Thoinot and E. J. Masselin, 221
Ouvrard (L.), the Metallic Borates, 336; Borates of Magnesium Series, 384
Oysters and Disease, Profs. W. A. Herdman, F.R.S., and R. Boyce, 587
Ozone-formation, Discharge of Electrified Bodies and, M. P. Villard, 311
Pacher (Dr. G.), Variations in Coefficient of Viscosity of Water near 4° C., 61; Viscosity of Dielectric Liquids not affected by Uniform Electrostatic Field, 572
Pacific Corals, the, ii., A. Agassiz, 432
Pacific Results of Recent Soundings in the, Prof. Alexander Agassiz, 211
Page (Frederick J. M.), a Manual of Chemistry, Inorganic and Organic, 442
Pagel (C.), New Method for Preparation of Double Sulphates of Chromium, 604
Paget (Sir James Bart., F.R.S.), Death of, 234; Obituary Notice of, Dr. F. W. Tunnicliffe, 256
Paget (Stephen), Experiments on Animals, 512
Paintings, Grey's Rock, H. Ling Roth, 248
Palaeobotany: *Blechnoxylon*, R. Etheridge, jun., 303; Jurassic Plants in Manchester Museum, A. C. Seward, 358; Wealden Plants from Bernissart, A. C. Seward, 359; *Equisetum Jolyi*, Ed. Bureau, 384; Origin of Fossil Trunks in Coal-measures, M. Grand'Eury, 579; the Stigmaria, M. Grand'Eury, 628
Palaeomelo in British Carboniferous Rocks, Dr. W. Hind, 191
Palaeontology: Horn of Aurochs found in Pomerania, 135; the Pomeranian Aurochs Horn, Dr. Nehring, 400; Geschichte der Geologie und Paläontologie bis Ende des 19 Jahrhunderts, 145; New Miocene Rodent, *Anomalomys Gaudryi*, Cl. Goillard, 336; *Archinolemur*, Señor Ameghino, 372; New Crinoidea: Oldhamia, Prof. W. J. Sollas, F.R.S., 382; the Mounting of Bones of Extinct Mammals, Prof. H. F. Osborn, 499; a Plesiosaurian from Uitenhage, Cape Colony, Mr. Schwarz, 544; Death and Obituary Notice of Dr. Wilhelm Waagen, 545; Fossil Bird from Stonesfield Slate, Prof. H. G. Seeley, F.R.S., 578; the Lower Ludlow Formation and its Graptolite Fauna, E. R. M. Wood, 578; *Onchippidium*, Dr. Einar Lönnberg, 579; Palaeontology of Invertebrates, Prof. K. A. von Zittel, 608; Zones in the Chalk, Dr. A. W. Rowe, 625; the Archelon Turtles from Fort Pierre Cretaceous of South Dakota, G. R. Wieland, 626; *Untacrinus* from Kansas, C. E. Beecher, 626
Palaeozoic Ichthyology: Some Recently-discovered Silurian Fish Remains. A Link in the Chain of Organic Evolution, R. H. Traquair, F.R.S., 306
Pamplin (William), Death and Obituary Notice of, 59
Papilio Machaon, Ueber einige Aberrationen von, Dr. J. W. Spengel, 316
Parallax, the Solar, M. Bouquet de la Grye, 236
Paris: M. Alby on the Construction and Erection of the Alexander III. Bridge over the Seine in Paris, 21; Paris Academy of Sciences, 24, 47, 71, 95, 119, 143, 166, 192, 239, 287, 311, 335, 359, 383, 407, 435, 459, 483, 507, 531, 555, 579, 603, 627; Prize List of the, 211; Prizes proposed by the, for 1900, 237; the Great Paris Telescope, Sir Norman Lockyer, K.C.B., F.R.S., 178
Parker (Prof. J. T.), Manual of Zoology, 559; an Elementary Course of Practical Zoology, 559
Parker (Prof. W. N.), an Elementary Course of Practical Zoology, 559
Parkin (J.), on some Isolated Observations bearing on the Function of Latex, 67
Parkinson (John), Rocks of South-east Coast of Jersey, 530
Parkinson (R.), Ethnography of Solomon Islands, 546
Parkinson (Wm.), Shadows of Insects, 177
Parrish (S.), Chemistry for Organised Schools of Science, 5
Parsons (Hon. C. A., F.R.S.), on Details of the Fast Cross

- Channel and Atlantic Liners, 21; Motive Power, Steam Turbines, High Speed Navigation, 424
 Parsons (Frances Theodora), How to know the Ferns, 412
 Passing of the Empires, the, G. Maspero, 361
 Pathology, Death of Dr. Birch-Hirschfeld, 134
 Paul (K. M.), Death of, 397
 Pauli (Dr. S.), Pneumaticity of Olfactory Regions of Mammalian Skull, 354
 Paulsen (M.), Photographs of Aurora Spectrum, 621
 Paving-stones, Artificial, in Germany, 14
 Peach (B. N., F.R.S.), the Silurian Rocks of Britain. Vol. i. Scotland, 25
 Peache (S. J.), Asymmetric Optically Active Nitrogen Compounds, 94, 96; Attempts to Resolve into Active Constituents Compounds containing Asymmetric Sulphur Atoms, 373; Methylenthylthiethine Dextrocamphorsulphonate and Dextro-*a*-bromo-camphorsulphonate, 405; Dextromethyl-ethyl-*n* propyl Tin Iodide, 434
 Peake (R. E.), Atlantic Deep-sea Soundings, 286
 Pearson (H. J.), Beyond Petsora Eastward: Two Summer Voyages to Novaya Zemlya and the Islands of Barents Sea, 348
 Pearson (Karl), Mathematical Contributions to Theory of Evolution, 505
 Perdie (Dr. W.), Thermo-electric Properties of Mercury, 286; the Torsional Constants of Iron and Steel, 359; Law of Elastic Fatigue, 482
 Peirce (Prof. B. O.), Specific Heat of Marble, 367
 Pélabon (H.), Chemical Equilibrium of a Four-gas System, 459; Action of Hydrogen on Antimony Sulphide, 580
 Pelat (H.), Stratifications, 383
 Penfield (S. L.), New Minerals from Franklin (New Jersey, U.S.A.) Zinc Mines, 93; Graftonite, 310
 Pentavalent Nitrogen, Stereo-chemistry of, Edgar Wedekind, 199
 Peopling of Australia, the, John Mathew, Prof. Alfred C. Haddon, F.R.S., 193
 Pepper (Prof.), Death and Obituary Notice of, 545
 Percival (A. S.), Optics, a Manual for Students, 149
 Perfumes, Chemistry of, Dr. W. H. Warren, 619
 Periodic Changes of Solar Activity, the Relation between the, and the Earth's Motion, Dr. J. Halm, 445
 Peripatus in the Malay Peninsula, Dr. R. Horst, 31
 Peripatus from New Zealand, a New, Prof. Arthur Dendy, 444
 Perkin (Dr. F. Mollwo), Advancement of Electrical Chemistry, 428
 Perkin (W. H., sen.), Rotatory Powers of Aromatic Hydrocarbons, 264
 Perkin (W. H., jun.), Brasiliin and Haematoxylin, III., 264; Action of Alcoholic Potash on Monobromoglutonic Ester, 264; Ethyl Pentanehexacarboxylate, 405
 Perman (E. P.), Vapour-density of Bromine at High Temperatures, 285
 Pernter (Dr. J. M.), Hail-prevention by Gun-firing, 451
 Périst (A.), Mass of Cubic Decimetre of Water, 71; New Source of Light for Spectrometry of Precision, 407; Constitution of Yellow Sodium Rays, 483
 Perreau (M.), Influence of Röntgen Rays on Electrical Resistance of Selenium, 167
 Perrine (Prof. C. D.), Refraction Effect of Comet Swift, 87
 Perrotin (M.), the Giacobini Comet, 47
 Perry (Prof. John, F.R.S.), the Steam Engine and Gas and Oil Engines, 100; Bust of Sir George Stokes, 102; Valve Motions of Engines, 152; to Calculate a Simple Table of Logarithms, 415; Atmospheric Electricity and Disease, 471; Electricity in War, 541; Practical Mathematics, Prof. A. G. Greenhill, F.R.S., 582
 Perspective Interference Curves depending on Perspective, A. Mallock, 29
 Perth Observatory, Position of, W. E. Cooke, 114
 Perturbations of Venus, Secular, Prof. Eric Doolittle, 41
 Pertz (D. F. M.), Experiments on Periodic Movement of Plants, 359
 Pestana (Dr. Camara), Death of, 84
 Peters (Dr. Carl), the Situation of Ophir, 203
 Peters (H.), Iodionium Compounds, 506
 Petroleum in Algeria, M. Neuburgher, 618
 Petroleum, Animal Origin of, 63
 Petrology: Origin of Granite, C. E. Stromeyer, 358; Lord Kelvin on the Origin of Granite, A. R. Hunt, 391, 589
 Petrovsky (A. A.), Measurement of Capacity in Heterogeneous Medium, 335
 Petsora Eastward, Beyond, Two Summer Voyages to Novaya Zemlya and the Islands of Barents Sea, H. J. Pearson, 348
 Pettersson (Prof. Otto), Stockholm International Conference on the Exploration of the Sea, 413
 Pflanzen, Das Gesetz der, R. J. Camerarius, 293
 Pflaum (H.), a Vacuum Electroscope, 554
 Pharmacy: an Introduction to the Study of Materia Medica, Henry G. Greenish, 174; Obituary Notice of Dr. Henri Beauregard, 593; Death and Obituary Notice of Gustave Planchon, 618
 Phillips (C. E. S.), Surface Tension Experiment, 481
 Philosophie Naturelle, La, Dr. W. Nicati, 199
 Philosophy of Atomic Theories, the, 26
 Phasalix (C.), New Pathogenic Microbe in Rabbit, 580
 Phonographic Record, the Acoustic Analysis of the Vowels from the, Prof. Louis Bevier, 467
 Phosphorescence, Loss by Heat of, Gustave le Bon, 579
 Photography: Dark Lightning Flashes, Dr. W. Ainslie Hollis, 7; Dr. W. J. S. Lockyer, 7; on the Cause of Dark Lightning and the Clayden Effect, Prof. R. W. Wood, 104; a Photograph of Clouds, Lieut.-General Tennant, 14; Szczepanik's Process of Preparing Textile Designs, Prof. R. Beaumont, 14; Long Focus Photographic Telescope, 41; Fault in Lippmann's Photography, P. Wiener, 93; British Journal Photographic Almanac for 1900, 175; Photography of Current Curves, J. Zenneck, 262; Apparatus for Instantaneous Photography producing Maximum Effect, G. Sigriste, 287; a New Photographic Photometer, Dr. J. Hartmann, 306; Transformation of Negative Image into Lamellar State, and Colour Phenomena therefrom, A. Frillat, 335; the Effects of Lightning upon Electric Lamps, Sydney Webb, 343; Sir G. G. Stokes, Bart., F.R.S., 343, 413; Prof. R. W. Wood, 391; Reduction of Star Photographs, A. R. Hinks, 355; Die Photographie der Gestirne, Dr. J. Scheiner, 363; Photographs of Stars, Star Clusters and Nebulae, together with Records of Results obtained in the Pursuit of Celestial Photography, Dr. Isaac Roberts, F.R.S., Dr. William J. S. Lockyer, 533; Recent Progress in Photography, 416; Meteor Photography, 424; Photographs of Sound-waves, Prof. R. W. Wood, 433; Photography of Live Fish, Douglas English, 451; the Zeiss Photo-micrographic and Projection Apparatus, Dr. J. W. Measures, 506; Theorie und Geschichte des Photographicen Objektives, Moritz von Rohr, 511
 Photometry: Proposed New Harvard Photometry, 208; a New Photographic Photometer, Dr. J. Hartmann, 306; Die Photometrie der Gestirne, Dr. G. Müller, 509; New System of Spectrum Photometry, Prof. D. B. Brace, 521
 Photometric Observations of Mercury during Solar Eclipses, Dr. G. Müller, 574
 Physical Atlas, the, J. G. Bartholomew and A. J. Herbertson, 171
 Physical Geography of Jamaica, the Geology and, Robert T. Hill, 237
 Physical Geography, Prof. W. M. Davis, assisted by W. H. Snyder, 266
 Physics: Geschichte der Physikalischen Experimenterkunst, Dr. E. Gerland and Dr. F. Traumüller, 4; Physical Society, 23, 70, 118, 164, 334, 382, 457, 481, 529; Equilibrium of Vessel Carrying Liquids, M. Appell, 24; Elements of Physics, Henry Crew, Prof. Arthur Schuster, F.R.S., 27; Interference Curves Depending on Perspective, A. Mallock, 29; Large Nicol Prisms, C. D. Ahrens, 31; Water Boiled by Cold, R. W. Quick, 60; Variations in Viscosity Coefficient of Water near 4° C., Dr. G. Pacher, 61; the Distillation of Metals, C. Kahlbaum, 65; Periodic Changes in Rate of Reaction, Prof. Ostwald, 65; the Silver Thread Phenomenon in Giggleswick Well, Dr. Broadbent, 70; Decrease in Tension of Solution Vapours at 0°, Dr. A. Smits, 72; Note on Distances to which Explosions are Felt and Heard, Dr. Charles Davison, 91; Explosions in Air, W. Wolff, 93; Wiedemann's Annalen, now Annalen der Physik, 93, 190, 262, 432, 554, 626; the Rise and Development of the Liquefaction of Gases, Willett L. Hardin, 98; la Liquefaction des Gaz et ses Applications, Prof. Julien Lefèvre, 98; Liquefaction of a Gas by Self-cooling, G. S. Newth, 627; the Resistance of the Air, 248; Prof. G. H. Bryan, F.R.S., 107, 248; Researches on Kerr's Phenomenon, M. Abraham and Lemoine, 112; the Elastic Properties of Rocks, P.

Rudski, 113; Apparatus for Determining Heat required to Evaporate Steam from Saturated Salt Solutions, Mr. Trouton, 143; the Molecular Potential Function, Dr. G. Bakker, 156; Attempt to Reconcile Apparently Opposite Mechanical Properties of the Ether, Lord Kelvin, 166; Method for Determining Mean Density of Earth, Al. Gerschun, 192; Kleiner Leitfaden der Praktischen Physik, Dr. F. Kohlrausch, 200; Handbook of Physics and Chemistry, H. E. Corbin and A. M. Stewart, 221; Lehrbuch der Experimental Physik, Adolph Wüllner, 221; Cooling of a Body in Steady Air-blast, II., Prof. Mitchell, 238; Discontinuities Produced by Brusse Expansion of Compressed Gases, Paul Vieille, 239; Changes in Volume Accompanying Hardening of Hydraulic Cements, H. Le Chatelier, 239; Le Phénomène de Zeeman, A. Cotton, 270; Vapour Density of Bromine at High Temperatures, E. P. Pernan and G. A. S. Atkinson, 285; Geometrical Representation of Relation between Wave-velocity and Group-velocity, Prof. Horace Lamb, F.R.S., 286; Value of Internal Pressure in Equations of Van Waals and Clausius, Daniel Berthelot, 287; the Kinetic Theory of Gases, Dr. Oskar Emil Meyer, 289; Prof. G. H. Bryan, 289; a Treatise on the Kinetic Theory of Gases, S. H. Burbury, 289; Prof. G. H. Bryan, 289; Leçons de Chimie Physique, J. H. van 't Hoff, 294; New Formula for Ostwald's Dilution Law, Dr. W. D. Bancroft, 303; the Co-volume in Characteristic Equation of Fluid, Daniel Berthelot, 311; Physico-chemical Studies of Tin, MM. Cohen and Van Eijk, 330; Contact Electricity, 332; Frequency of Transverse Vibrations of Stretched India-rubber Cord, T. J. Baker, 334; Change with Temperature of Coefficient of Absorption of Gas in Liquid, Prof. Kuenen, 339; Specific Heat of Metals, Robert W. Willson, 367; Hydrometers, G. Guglielmo, 371, 421; Conditions of Solitary Wave-propagation, R. W. Gwyther, 383; Motion of Particles in Steady Fluid Motion, R. W. Gwyther, 383; Surface Tension of some Organic Liquids, Paul Dutoit and Louis Friderich, 383; Physical Principles and Moral Precepts, Dr. G. Gore, 389; Exercises in Practical Physics, R. A. Gregory and A. T. Simmons, 390; Death of Dr. Hermann Schäffer, 397; Freezing Points of Solutions, E. H. Loomis, 399; Entropy of Radiation, J. Van der Waals, jun., 407; to Calculate a Simple Table of Logarithms, Dr. Arthur Dufton, 415; Prof. John Perry, F.R.S., 415; Mechanical Methods of Calculating Logarithms, H. C. Pocklington, 469; Soap-bubbles, O. Dörge, 432; Molecular Susceptibility of Para-magnetic Salts of Iron Group, and of Salts of Rare Earths, O. Liebknecht, 432; Molecular Susceptibility of Para-magnetic Salts of Iron Group, A. P. Wills, 432; Molecular Susceptibility of Salts of Rare Earths, H. du Bois, 432; Criticism on Modern Theory of Solutions, E. F. Morris, 435; Suggested Source of the Energy of the Bequerel Rays, Dr. Fred. T. Trouton, F.R.S., 443; the Osmotic Pressure Analogy, Prof. Lehfeldt, 453; Relative Effusion-rates of Argon, Helium and other Gases, Dr. F. G. Donnan, 457; the Distillation of Liquid Air, E. C. C. Baly, 457; Uses of Liquid Air for Researches at Low Temperatures, Prof. Ramsay, 458; Ouvres Scientifiques de L. Lorenz, H. Valentiner, 465; Death and Obituary Notice of Dr. Thomas Preston, F.R.S., 474; Effects of Strain on Thermo-electric Qualities of Metals, Prof. M. Maclean, 481; Surface-tension Experiment, C. E. S. Phillips, 481; State of Practical Instruction in Physics, Dr. Boris Weinberg, 515; Physical Review, 529; Relations between Electrolytic Conductivity and Internal Friction of Saline Solutions, P. Massoulier, 531; a Text-book of Physics, W. Watson, Prof. Hugh L. Callendar, F.R.S., 557; Heat for Advanced Students, Edwin Edser, Prof. Hugh L. Callendar, F.R.S., 557; Text-book of Experimental Physics, Eugene Lommel, Prof. Hugh L. Callendar, F.R.S., 557; Lectures on some of the Physical Properties of Soil, R. W. Warington, F.R.S., 561; Science Course for Secondary Schools, G. Robb and J. Mirquet, 562; Viscosity of Dielectric Liquids unaffected by Uniform Electrostatic Field, Dr. G. Pacher and L. Finazzi, 572; Determination of Mass of Cubic Decimetre of Water, Dr. C. E. Guillaume, 572; Mechanism of Gelation and Stability of Hydrosols, W. B. Hardy, 599; Movements produced in Liquids by Heat Convection, Henri Bénard, 604; Size at which Heat Movements Manifested in Matter, Prof. G. F. Fitzgerald, F.R.S., 612; Death of Prof. Silas W. Holman, 618

Physiognomy: Human Nature: its Principles and the Principles of, 127
Physiography: Experimental Science (Physiography, Section I.), R. A. Gregory and A. T. Simmons, 77; Die hochgebirge der Erde, Robert von Lendenfeld, Prof. T. G. Bonney, F.R.S., 219; First Steps in Earth-knowledge, being an Introduction to Physiography, J. A. Harrison, 317; Elementary Practical Physiography, J. Thornton, 539
Physiology: Affinities of Vascular Endothelium, Henri Stassano, 24; Exercise and Respiration, Dr. A. Foxwell, 39; Estimation of Alcohol in Blood and Tissues, N. Gréhan, 95; Alcohol in Blood of Mother and Fetus, Maurice Nicloux, 556; Stereo-chemistry and Physiology, Prof. Emil Fischer, 140; Normal Arsenic in Animals, Armand Gautier, 166-7; Arsenic in Animals, Armand Gautier, 383; Recent Researches on Uric Acid, Prof. Emil Fischer, 187; Co-existence of Reducing and Oxidising Diastase in Animal Organs, J. Abelous and E. Gérard, 192; a New Pathogenic Mucor, MM. Lucet and Constantin, 192; Mechanism of Blood-pressure in Ocular Capillaries, W. Nicat, 192; Fat and Soap Absorption in Large and Small Intestine, Dr. Hamburger, 216; Physiology *versus* Natural Selection: an Unnatural Antithesis, 217; the Zymolysis of Tissues, Dr. J. S. McKendrick, 238; a New Myograph, Dr. Mahalanobis, 238; Effect of Electric Discharges on Heart of Mammals, J. L. Prevost and F. Battelli, 239; New Theory of Smell, MM. Vaschide and Van Melle, 240; Law of Conservation of Energy in Human Organism, Prof. W. O. Atwater and E. B. Rosa, 258; Plastic Activity of Animal Cells, L. Ranvier, 287; Ovarian Follicle of Reptiles, Marie Loyez, 287; Automatism of Nerve Cells, M. Pompilian, 312; a Crystallised Fibrin, L. Maillard, 336; Nature of Propagation of Nervous Impulse, G. Weiss, 336; New Method of Measuring Thermal Sensibility, Ed. Toulouse and W. Vaschide, 336; Transformation of Nitro-benzene into Aniline by Horse-kidney Ferment, E. Abelous and E. Gérard, 407; Les Sucres et leurs principes Dérivés, Prof. L. Maquenne, Prof. R. Meldola, F.R.S., 461; Sugar as Heat-producer in Fasting Animals, Prof. U. Mossé, 476; Work of Spinal Nervous Centres, J. Joteyko, 483; concerning Physiological Alteration of Kidneys, E. Bardier and H. Frenkel, 483; Diminished Digestive Activity of Saliva in Certain Diseases, Dr. W. G. A. Robertson, 531; Specific Heat of Blood, H. Bordier, 532; Measurement of Taste, Ed. Toulouse and N. Vaschide, 532; Transformation of Fat into Glycogen in Organism, Ch. Bouchard and A. Desgrez, 555; Microscopic Researches in Glycogen, Part II., Charles Creighton, 586; Absorption of Iodides by Human Skin, F. Gallard, 556; Vegetable Physiology. *See* Botany
Pick (Thos. Pickering), Surgery: a Treatise for Students and Practitioners, 76
Pickering (Prof. E. C.), Ceraski's Second Algol Variable, 454
Pickering (Prof. W. H.), Search for an Intramericurial Planet, 479
Pierce (G. W.), Application of Ratio-micrometer to Measurement of Short Electric Waves, 626
Pigeon, "Homing": the Orientation of the, E. de Cyon, 596
Pigmy Flints in Yorkshire, R. A. Gatty, 282
Pigott (T. D.), Extirpation of a Species of Humming-bird by Hurricane, 545
Pirsson (L. V.), Geology of Judith Mountains of Montana, 600
Pisciculture: Salmon Hatching in Norway, 39; European Rivers stocked with American Fry, 39
Pittman (E. F.), Underground Temperature, 484
Plague: Climatic Conditions of Plague, B. Latham, 214; the Indian Plague and Haffkine's Inoculations, 422; Anti-plague Inoculations, 550; the "Emerods" of the Bible Bubonic Plague, Drs. F. Tidswell and J. A. Dick, 501
Planarians, the, W. G. Vanname, 15
Planchon (Gustave), Death and Obituary Notice of, 618
Planetary Atmospheres, Escape of Gases from, S. R. Cooke, 501; Dr. G. Johnstone Stoney, F.R.S., 515
Planetary Work at the Manora Observatory, 574
Planets: Secular Perturbations of Venus, Prof. Eric Doolittle, 41; Occultation of Neptune, 62, 158, 453; New Minor Planet (1899 E.Z.), 187; New Minor Planet (1899 E.V.), 402; Herr Otto Knopf, 283; Opposition of Minor Planet (434), Hungaria, 453; Search for an Intramericurial Planet, Prof. W. H. Pickering, 479; Planets at their Greatest Brilliancy, C. T. Whitmell, 540

- Plant Relations: a First Book of Botany, John Coulter, 442
 Plantes Médicinales: Atlas de Photomicrographie des, Drs. Braemer et Suis, 539
 Plants, List of the Genera and Species of New Zealand, A. Hamilton, W. Botting Hemsley, F.R.S., 146
 Plates, Armour, R. A. Hadfield, 301
 Playfair (Lyon), Memoirs and Correspondence of, First Lord Playfair of St. Andrews, LL.D., F.R.S., Sir Wemyss Reid, 121
 Plowright (Dr. Charles B.), On the Blue Colour in Woad, 331, 563
 Plummer (W. E.), Sextant-telescopes, 54
 Pocklington (H. C.), Mechanical Methods of Calculating Logarithms, 469
 Pollen, the Potency and Prepotency of, Prof. H. Marshall Ward, F.R.S., 470
 Polytechnic, The South-western, A. T. Simmons, 208
 Pompilian (M.), Automatism of Nerve Cells, 312
 Pomum in Pomo, Miss Tine Tammes, 408
 Pope (T. H.), Manno-galactan and Levulose-mannan, 530
 Pope (W. J.), Asymmetric Optically Active Nitrogen Compounds, 94-96; Methylethylthiethine Dextrocamphorsulphonate and Dextro-*x*-bromcamphorsulphonate, 405; Dextromethyl-ethyl-*n*-propyl Tin Iodide, 434; Attempts to resolve into Active Constituents Compounds containing Asymmetric Sulphur Atoms, 373; Racemisation during Formation of Benzylidene, Benzoyl and Acetyl Derivatives of Dextro-acetotetrahydro- β -Naphthylamine, 530
 Popoff (Boris) the "Rotten Stone" Granite of East Finland, 285
 Popular Astronomy for December, 208
 Potato-Beetle, *Collops* Beetle feeding on Larva of Colorado, C. E. Mead, 328
 Potency and Prepotency of Pollen, the, Prof. H. Marshall Ward, F.R.S., 470
 Potsdam, the New Twin Refractor at, 479
 Potter (Prof.), on a Bacterial Disease—White Rot—of the Turnip, 66
 Powell (F. E.), Electric Bells and Alarms, 562
 Pozzi-Escot (M.), New Micro-chemical Reaction of Copper, 288; New Micro-chemical Reaction of Palladium, 628
 Practical Instruction in Physics, State of, Dr. Boris Weinberg, 515
 Practical Mathematics, Prof. John Perry, F.R.S., Prof. A. G. Greenhill, F.R.S., 582
 Prawns, Changes of Colour of, F. W. Keeble and F. W. Gamble, 552
 Predominance of Spiral Nebulae, Prof. J. E. Keeler, 87
 Preece (Sir William Henry, K.C.B., F.R.S.), the Functions of the Engineer, 374; the Relations between Electricity and Engineering, 622
 Preservative, Formalin as a, 204
 Pressland (A. J.), Elementary Trigonometry, 390
 Preston (Prof. Thomas, F.R.S.), Some Remarks on Radiation Phenomena in a Magnetic Field, 11
 Preston (Dr. Thomas, F.R.S.), Death and Obituary Notice of, 474
 Preston (H. L.), Illinois Gulch Meteorite, 529; Two New American Meteorites, 626
 Preventive Medicine, Transactions of the Jenner Institute of (late British Institute of Preventive Medicine), 387
 Prevost (J. L.), Death by Electric Discharge, 24; Effects of Electric Discharges on Heart of Mammals, 239
 Priestley (Sir William), Death and Obituary Notice of, 593
 Prillieux (M.), the Antibes Carnation Disease, 95; a Caucasian Vine Disease, 383
 Primeval Scenes, being some Comic Aspects of Life in Prehistoric Times, Rev. H. N. Hutchinson, 150
 Prior (G. T.), Florencite, 119; the Hamlinite Group of Minerals, 579
 Prismoidal Formula, the, G. H. Knibbs, 167
 Prizes proposed by the Paris Academy of Sciences for 1900, 237
 Progress of Agricultural Chemistry, Prof. Maercker, 116
 Progress in North-western America, W. A. Baillie-Grohman, 566
 Pseudo-chalcedonite, A. Lacroix, 407
 Psychology: Anlage and Rudiment, Prof. J. Mark Baldwin, 29; Dr. W. H. R. Rivers on the Investigations on Comparative Psychology made in Torres Straits and New Guinea, 43; Relative Fidelity of Memory Image, Dr. I. M. Bentley, 87
 60; Evolution of General Ideas, Prof. Th. Ribot, 149; the Royal Society Catalogue and Psychology, Prof. J. Mark Baldwin, 226
 Purification of Trade Waste, the, R. A. Tatton, 281
 Purinton (C. W.), Mining Industries of Telluride Quadrangle, Colorado, 600
 Purves (Dr. J. A.), Modern Lighthouse Apparatus, 393
 Pumping in Mines, Prof. W. Galloway, 606
 Qualitative Analysis, an Introduction to, H. P. Highton, 514
 Quartic, Solution of the, G. B. Mathews, 55
 Quartz, the Smell emitted by, when Rubbed, E. L. Garbett, 491
 Quartz Thermometers, M. Dufour, 521, 531
 Quelch (J. J.), Zoology of Mount Roraima, 406
 Quick (R. W.), Water Boiled by Cold, 60
 Rabbit, Egg-hatching, 423
 Races of Man, the, an Outline of Anthropology and Ethnography, J. Deniker, Prof. A. C. Haddon, F.R.S., 462
 Racial Aspect of Voluntary Enlistment, R. C. T. Evans, 200
 Radais (M.), Chlorophyll-formation in Dark, 532
 Radiation, Entropy of, J. Vander Waals, junr., 407
 Radiation Phenomena, some Remarks on, in a Magnetic Field, Prof. Thomas Preston, F.R.S., 11
 Radicles in Carbon, Determination of, Dr. H. Meyer, 538
 Radiography: The Secondary Röntgen Rays, J. S. Townsend, 95; Chemical Action of Röntgen Rays, P. Villard, 143; Measurement of Velocity of Röntgen Rays, B. Brenhes, 311; Influence of Röntgen Rays on Electrical Resistance of Selenium, M. Perreau, 167; Duration of Emission of Röntgen Rays, B. Brunhes, 604; Negative Electrification of Secondary Rays produced by means of Röntgen Rays, P. Curie and G. Sagnac, 604; Fluorescence of Metallic Compounds under Röntgen and Becquerel Rays, Paul Bary, 531; the X-Ray Case Book, for Noting Apparatus, Methods and Results, David Walsh, 150; Radio-activity induced by Becquerel Rays, M. and Mme. Curie, 71; Chemical Effects of Becquerel Rays, M. and Mme. Curie, 120; Magnetic Deflection of Becquerel Rays, F. Giesel, 26; Action of Magnetic Field on Becquerel Rays, P. Curie, 287; Penetration of Becquerel Rays not deviable in Magnetic Field, Mme. Curie, 287; the Absorption of the Becquerel Rays by Solid and Gaseous Bodies, Hon. R. J. Strutt, 539; Origin of Energy of Becquerel Rays, Henri Becquerel, 547; Phosphorescence Phenomena of Radium Radiation, H. Becquerel, 166; Influence of Magnetic Field on Radiation of Radio-active Bodies, H. Becquerel, 192; the Radiation of Radio-active Bodies, H. Becquerel, 239; Effect of Use of Triphase Currents, M. Deléziner, 335; Radium and Polonium Rays in Magnetic Field, Henri Becquerel, 355; Radium and Polonium Rays, Henri Becquerel, 371; the Radium Radiations, Henri Becquerel, 359; Dispersion of Radium Rays in Magnetic Field, Henri Becquerel, 407; Electric Charge of Deviable Radium Rays, M. and Mme. Curie, 483; Negative Charge communicated by Radium Rays, Henri Becquerel, 498; Deviation of Radium Rays in Electric Field, Henri Becquerel, 555; Actinium Rays, A. Debierre, 573, 580; Loss of Phosphorescence by Heat, Gustave le Bon, 579; Transmission of Radium Radiation through Substances, Henri Becquerel, 603; Reflection and Refraction of Kathode and deviable Radium Rays, P. Villard, 604
 Rae (J. L. C.), Underground Temperature, 484
 Rail, the Flightless, of New Zealand, Prof. W. B. Benham, 576
 Rails, Development of Manufacture and Use in Great Britain of, Sir J. L. Bell, F.R.S., 595
 Railways, Wear in Tunnels of Steel, Thos. Andrews, F.R.S., 595
 Railway, the Waterloo and City; Methods of Construction, H. H. Dalrymple-Hay, 85; Electrical Equipment, B. M. Jenkins, 85
 Ranvier (L.), Plastic Activity of Animal Cells, 287
 Ray (A. C.), Interaction of Mercurous Nitrite and Ethyl Iodide, 264
 Ray (Sidney H.), on the Linguistic Results of the Cambridge Expedition to Torres Straits and New Guinea, 42
 Rayleigh (Lord), Scientific Papers, 588
 Read (H. M.), Japaconitine, 119
 Real Instituto Lombardo, Prize Awards, 420
 Red Sandstone of Shetland, the Old, 80
 Refraction Effect of Comet Swift (1899 I), Prof. C. D. Perrine, 87

- Refractor, the New Twin, at Potsdam, 479
 Refuse-destruction and Steam-raising, C. N. Russell, 185
 Reh (Dr. L.), Symmetry and Asymmetry in Animals, 186
 Reid (Clement), Geology of Country round Dorchester, 113
 Reid (Sir Wemyss), Memoirs and Correspondence of Lyon Playfair, First Lord Playfair of St. Andrews, LL.D., F.R.S., 121
 Reid (W. F.), Velvrl, 59
 Reinders (Dr. W.), Mixture Crystals of HgI_2 with $HgBr_2$, 71
 Religion : Books on Egypt and Chaldea, Egyptian Ideas of the Future Life ; Egyptian Magic, E. A. Wallis Budge, Frank Rede Fowke, 437 ; Babylonian Religion and Mythology, L. W. King, Frank Rede Fowke, 437
 Reliquary, the, and Illustrated Archaeologist, 6
 Renard (A. F.), Notions de Mineralogie, 610
 Renault (B.), New Bacteria in Coal, 508
 Rennie (Major S. J.), Snake Bite Cured by Calmette's Antivenene, 85
 Representation of the University of London, 275
 Reptiles : A Complete Mosasaur's Skeleton and a Skeleton of Diplodocus, H. F. Osborn, 534
 Research, the Indian University of, 260
 Resistance of the Air, the, 248 ; Prof. G. H. Bryan, F.R.S., 107, 248
 Resonance, an Interesting Case of, Kenneth McMurtrie, 445
 Respiration, Exercise and, Dr. A. Foxwell, 39
- REVIEWS AND OUR BOOKSHELF :
- The Theory of Water Finding by the Divining Rod : its History, Method, Utility and Practice, B. Tompkins, C. V. Boys, F.R.S., 1
 Geschichte der Physikalischen Experimentierkunst, Dr. E. Gerland and Dr. F. Traumüller, 4
 The Diseases of Children, G. Elder and J. S. Fowler, 5
 Analyses Electrolytiques, Ad. Minet, 5
 Essais des Huiles Essentielles, Henri Labbé, 5
 Chemistry for Organised Schools of Science, S. Parrish, 5
 Natural and Artificial Methods of Ventilation, 6
 Man, the Microcosm, Part I., the Nature of Man, Leonard Hall, 6
 The Reliquary and Illustrated Archaeologist, 6
 The Silurian Rocks of Britain, B. N. Peach, F.R.S., and J. Horne, 25
 Essai Critique sur l'Hypothèse des Atomes dans la Science Contemporaine, Arthur Hannequin, 26
 Elements of Physics, Henry Crew, Prof. Arthur Schuster, F.R.S., 27
 A Laboratory Outline of General Chemistry, Alexander Smith, 27
 Ueber den Habitus der Coniferen, Dr. A. H. Burt, 28
 Beasts : Thumbnail Studies in Pets, Wardlaw Kennedy, 28
 The Cambridge Natural History. Insects, Part ii., David Sharp, W. F. H. Blandford, 49
 The International Geography, Prof. T. G. Bonney, F.R.S., 50
 Einführung in die Chimie in leichtfasslicher Form, Prof. Dr. Lassar-Cohn, 51
 Laboratory Manual, Experiments to Illustrate the Principles of Chemistry, H. W. Hillyer, 52
 L'Industrie des Matières Colorantes Azoïques, George F. Jaubert, 53
 Elementary Practical Mathematics, Frank Castle, 53
 The New Education, Manual Training : Woodwork, Richard Wake, 53
 The Naval Pioneers of Australia, Louis Becke and Walter Jeffery, 53
 Arithmetical Exercises in Chemistry, Leonard Dobbin, 53
 Traité Élémentaire de Mécanique Chimique, fondée sur la Thermodynamique, P. Duhem, Prof. G. H. Bryan, F.R.S., 73
 Seconda Spedizione Bottega. L'Omoo. Viaggio d'Esplorazione nell'Africa Orientale, L. Vannutelli and C. Citteri, 75
 Surgery : a Treatise for Students and Practitioners, Thomas Pickering Pick, 76
 Elements of Precise Surveying and Geodesy, Mansfield Merriman, Sir C. W. Wilson, K.C.B., F.R.S., 77
 Experimental Science (Physiography, Section I), R. A. Gregory and A. T. Simmons, 77
 Tito Nenci. I. Bachì da Seta, 77
- Types of British Animals, F. G. Afalo, 77
 Marriages of the Deaf in America, Edward Allen Fay, Dr. Macleod Yearsley, 97
 The Rise and Development of the Liquefaction of Gases, Willet L. Hardin, 98
 La Liquefaction des Gaz et ses Applications, Prof. Julien Lefèvre, 98
 Studien zur Geographie, Dr. W. Kobelt, 99
 The Steam Engine and Gas and Oil Engines, John Perry, F.R.S., 100
 Practical Plane and Solid Geometry for Advanced Students, including Graphic Statics, J. Harrison and G. A. Baxandall, 101
 Grundlinien der maritimen Meteorologie, W. Köppen, 101
 Inorganic Chemical Preparations, Felix Lengfeld, 101
 The Utility of Sulphate of Ammonia in Agriculture, James Muir, 101
 Euclid, Books I-IV., Charles Smith and Sophie Bryant, 102
 Sylvia in Flowerland, Linda Gardiner, 102
 Magnetism and Electricity, J. Paley Yorke, 102
 Field and Folklore, Harry Lowerison, 102
 Memoirs and Correspondence of Lyon Playfair, First Lord Playfair of St. Andrew's, P.C., G.C.B., LL.D., F.R.S., Wemyss Reid, 121
 Alaska and the Klondike, Angelo Heilprin, 122
 Inorganic Chemistry for Advanced Students, Sir Henry E. Roscoe, F.R.S., and Arthur Harden, 125
 Elements of Natural Philosophy, Alfred Earl, 125
 Elementary Practical Chemistry, A. J. Cooper, 126
 The Teaching of Geography in Switzerland and North Italy, Joan Berenice Reynolds, 126
 Liverpool Marine Biology Committee's Memoirs, *Ascidia*, Prof. W. A. Herdman, F.R.S., 126
 The Story of the Wanderings of Atoms, especially those of Carbon, M. M. Pattison Muir, 126
 General Index by Robert Newstead, F.E.S., Curator of the Grosvenor Museum, Chester, to Annual Reports of Observations of Injurious Insects, 1877-1898, Eleanor A. Omerod, 126
 A Hand-list of the Genera and Species of Birds, R. Bowdler Sharpe, 126
 Human Nature : its Principles and the Principles of Physiognomy, 127
 Geschichte der Geologie und Paläontology bis Ende des 19 Jahrhunderts, Karl Alfred v. Zittel, 145
 The Students' Flora of New Zealand and the Outlying Islands, Thomas Kirk, W. Botting Hemsley, F.R.S., 146
 List of the Genera and Species of New Zealand Plants, A. Hamilton, W. Botting Hemsley, F.R.S., 146
 Encyclopædia Biblica, Rev. T. K. Cheyne and J. S. Black, 148
 Statistical Methods, with Special Reference to Biological Variation, C. B. Davenport, 149
 Evolution of General Ideas, Prof. Th. Ribot, 149
 Handbook of Optics for Students of Ophthalmology, Prof. William Norwood Suter, 149
 Optics : a Manual for Students, A. S. Percival, 149
 A Practical Introduction to the Study of Botany : Flowering Plants, Prof. J. Bretland Farmer, 150
 Primeval Scenes : being some Comic Aspects of Life in Prehistoric Times, Rev. H. N. Hutchinson, 150
 A Treatise on Surveying, R. E. Middleton and O. Chadwick, 150
 The X-Ray Case Book for Noting Apparatus, Methods and Results, David Walsh, 150
 The Wheat Problem, Sir William Crookes, F.R.S., Sir R. Giffen, K.C.B., F.R.S., 169
 Atlas of Meteorology, J. G. Bartholomew and A. J. Herbertson, 171
 The North American Slime Moulds, Prof. T. H. McBride, 173
 An Introduction to the Study of Materia Medica, Henry G. Greenish, 174
 Descriptive General Chemistry, S. E. Tilman, 175
 Zoologia, Prof. Achille Griffini, 175
 The British Journal Photographic Almanac for 1900, 175
 The Elements of Blowpipe Analysis, Frederick Hutton Getman, 176
 The Elements of Euclid, R. Lachlan, 176
 Essai du Commerce et de l'Industrie, L. Cuniasse and R. Zwilling, 176

- Dairy Chemistry, H. Droop Richmond, 176
 A Manual of Surgical Treatment, Prof. W. Watson Cheyne, F.R.S., and F. F. Burghard, 176
 Eaglehawk and Crow: a Study of the Australian Aborigines, including an Inquiry into their Origin and a Survey of Australian Languages, John Mathew, Prof. Alfred C. Haddon, F.R.S., 193
 A Catalogue of the Cyprus Museum, with a Chronicle of Excavations undertaken since the British Occupation and Introductory Notes on Cypriote Archaeology, John L. Myres and Max Ohnefalsch-Richter, 195
 The Strength of Materials, Prof. J. A. Ewing, F.R.S., 197
 Metallurgy of Lead and Silver, Henry F. Collins, 198
 Zur Stereochemie des fünfwertigen Stickstoffes mit besonderer Berücksichtigung des asymmetrischen Stickstoffes in der aromatischen Reihe, Edgar Wedekind, 199
 Handbook of Metallurgy, Dr. Carl Schnabel, Sir W. C. Roberts-Austen, K.C.B., F.R.S., 199
 La Philosophie Naturelle, Dr. W. Nicati, 199
 Kleiner Leitfaden der Practischen Physik, Dr. F. Kohlrausch, 200
 Elementary Algebra, C. H. French and G. Osborn, 200
 Magnetism and Electricity for Beginners, H. E. Hadley, 200
 Colour in Nature: a Study in Biology, Marion I. Newbiggin, 217
 Experimental Morphology, Charles Benedict Davenport, 218
 Die hochgebirge der Erde, Robert von Lendenfeld, Prof. T. G. Bonney, F.R.S., 219
 Beginselen der Scheikunde, Dr. M. C. Schuyten, 220
 Students' Edition of a Standard Dictionary of the English Language, 220
 The Standard Intermediate School Dictionary of the English Language, 220
 Outlines of Bacteriology, Dr. L. H. Thoinot and E. J. Masselin, 221
 Lehrbuch der Experimental Physik, Adolph Wüllner, 221
 Proceeding of the Eleventh Annual Meeting of the Association of Economic Entomologists, 221
 Elementary Dynamics, W. M. Baker, 221
 Handbook of Physics and Chemistry, H. E. Corbin and A. M. Stewart, 221
 Handbuch der Astronomischen Instrumentenkunde, Dr. L. Ambronn, 241
 Die Optischen Instrumente der Firma R. Fuess deren Beschreibung, Justierung und Anwendung, C. Leiss, 241
 A History of Wireless Telegraphy, 1838-1899, J. J. Fahie, 243
 La Télégraphie sans Fils, André Broca, 243
 Biological Lectures from the Marine Biological Laboratory, Woods Holl, Massachusetts, 1898, 244
 Darstellung der 32 möglichen Krystallklassen, Prof. H. Baumhauer, 245
 The Essex Naturalist: the Journal of the Essex Field Club, 245
 Anleitung zur Darstellung chemischer Präparate. Ein Leitfaden für den praktischen Unterricht in der Anorganischen Chemie, Prof. Dr. H. Erdmann, 246
 The Boyhood of a Naturalist, Fred Smith, 246
 Newton's Laws of Motion, Prof. P. G. Tait, 265
 Physical Geography, Prof. W. M. Davis and W. H. Snyder, 266
 Bartlett's Life among Wild Beasts in the Zoo, the late A. D. Bartlett, 267
 Recherches Expérimentales sur les Oscillations Électriques, A. Turpaine, 268
 Indicators and Test Papers, Alfred I. Cohn, 269
 Optical Activity and Chemical Composition, Dr. H. Landolt, 269
 Science and Faith; or, Man as an Animal and Man as a Member of Society, with a Discussion of Animal Societies, Dr. Paul Topinard, 270
 Who's Who, 1900, 270
 The Englishwoman's Year-book and Directory, 1900, 270
 Le Phénomène de Zeeman, A. Cotton, 270
 Dictionnaire des Termes de Médecine, Français-Anglais, H. de Méric, 270
 The Kinetic Theory of Gases, Dr. Oskar Emil Meyer, Prof. G. H. Bryan, F.R.S., 289
 A Treatise on the Kinetic Theory of Gases, S. H. Burbury, F.R.S., Prof. G. H. Bryan, F.R.S., 289
- A Descriptive Catalogue of the Indian Deep-sea Fishes in the Indian Museum, 291
 An Account of the Deep-sea Brachyura: being Systematic Reports upon the Materials collected by the Royal Indian Marine Survey Ship *Investigator*, 1874-1899, A. Alcock, 291
 A Glimpse at Guatemala, and some Notes on the Ancient Monuments of Central America, Anne Carey Maudslay and Alfred Percival Maudslay, A. H. Keane, 292
 Das Geschlecht der Pflanzen, R. J. Camerarius, 293
 Journals and Papers of Chauncy Maples, D.D., F.R.G.S., late Bishop of Likoma, Lake Nyasa, 294
 Leçons de Chimie Physique, J. H. van 't Hoff, 294
 Glî Agrumi, Prof. Antonio Aloi, 294
 Star-land, Sir Robert S. Ball, F.R.S., 294
 Brain in Relation to Mind, J. Sanderson Christison, 295
 L'Année Biologique, 313
 Exercices d'Arithmétique, J. Fitz-Patrick and G. Chevrel, 314
 In Dwarf Land and Cannibal Country, a Record of Travel and Discovery in Central Africa, A. B. Lloyd, 314
 Telephotography, Thomas R. Dallmeyer, 315
 Ueber einige Aberrationen von Papilio machaon, Dr. J. W. Spengel, 316
 A Koelliker's Handbuch der Gewebelehre des Menschen, Victor v. Ebner, 316
 The Evolution of Geography, a Sketch of the Rise and Progress of Geographical Knowledge from the Earliest Times to the First Circumnavigation of the Globe, John Keane, 317
 First Steps in Earth-knowledge, being an Introduction to Physiography (Section I.), J. A. Harrison, 317
 Die Orkane des "Fernen Ostens," Prof. Dr. Paul Bergholz, 317
 Volumetric Analysis, John B. Coppock, 317
 Our Rarer British Breeding Birds, their Nests, Eggs, and Summer Haunts, R. Kearton, 323
 The Birds of Rhode Island, R. H. Howe, jun., and E. Sturtevant, 323
 The Birds of Eastern North America: Water Birds, Part I., Key to the Families and Species, C. B. Cory, 323
 The Letters of Faraday and Schönbein, 1836-1862, with Notes, Comments, and References to Contemporary Letters, Prof. R. Meldola, F.R.S., 337
 The History of the European Fauna, R. F. Scharff, 341
 Le Cidre, X. Rocques, 342
 Liverpool School of Tropical Diseases, 342
 Our Insect Friends and Foes: How to Collect, Preserve, and Study Them, Belle S. Cragin, 342
 The Passing of the Empires, G. Maspero, 361
 The Fishes of North and Middle America, David Starr Jordan and Barton Warren Evermann, 362
 Die Photographie der Gestirne, Dr. J. Scheiner, 363
 Euclid's Elements of Geometry, Charles Smith and Sophie Bryant, 365
 A First Book in Statics and Dynamics, Rev. J. R. Robinson, 365
 Life and Happiness, Auguste Marrot, 365
 Compendium of Geography and Travel, Geo. G. Chisholm, Dr. Hugh Robert Mill, 368
 Fixirung, Färbung, und Bau des Protoplasmas. Kritische untersuchungen ueber Technik und Theorie in der neuern Zellforschung, Dr. Alfred Fischer, Prof. J. B. Farmer, 383
 Transactions of the Jenner Institute of Preventive Medicine (late British Institute of Preventive Medicine), 387
 The Scientific Basis of Morality, Dr. G. Gore, 389
 Exercises in Practical Physics, R. A. Gregory and A. T. Simmons, 390
 Abhandlung der Dynamik, D'Alembert, 390
 Ueber die Mathematische Theorie der electrodynamischen Induction, Ricardo Felici, 390
 Équilibre des Systèmes Chimiques, J. Willard Gibbs, 390
 Elementary Trigonometry, A. J. Pressland and Ch. Tweedie, 390
 A Century of Science and other Essays, John Fiske, 390
 The Life of James Dwight Dana, Scientific Explorer, Mineralogist, Geologist, Zoologist, Professor in Yale University, Daniel C. Gilman, Prof. John W. Judd, C.B., F.R.S., 409
 Billiards Mathematically Treated, G. W. Hemming, S. H. Burbury, F.R.S., 410

- A Rudimentary Treatise on Coal and Coal Mining, the late Sir Warington W. Smyth, F.R.S., Bennett H. Brough, 411
 Untersuchungen über die Chemischen Affinitäten, C. M. Gulberg and P. Waage, 412
 How to Know the Ferns, Frances Theodora Parsons, 412
 Laboratory Note-book for Chemical Students, Prof. Vivian B. Lewes and J. S. S. Brame, 412
 The Elements of Co-ordinate Geometry, J. H. Grace and F. Rosenberg, 412
 Books on Egypt and Chaldea, Egyptian Ideas of the Future Life, Egyptian Magic, E. A. Wallis Budge, Frank Rede Fowke, 437
 Babylonian Religion and Mythology, L. W. King, F.S.A., Frank Rede Fowke, 437
 The Scientific Memoirs of Thomas Henry Huxley, 440
 The Scientific Study of Scenery, John E. Marr, F.R.S., 441
 Plant Relations: a First Book of Botany, John Coulter, Prof. J. B. Farmer, 442
 Elementary Chemistry for High Schools and Academies, Albert L. Arey, 442
 A Manual of Chemistry, Inorganic and Organic, Dr. Arthur P. Luff and Frederic J. M. Page, 442
 Dictionary of the Lepcha Language, General G. B. Mainwaring, 442
 Les Sacres et leurs Principaux Dérivés, L. Maquenne, Prof. R. Meldola, F.R.S., 461
 The Races of Man; an Outline of Anthropology and Ethnography, J. Deniker, Prof. A. C. Haddon, F.R.S., 462
 System der Bakterien, Dr. W. Migula, Dr. E. Klein, F.R.S., 464
 Ouvres Scientifiques de L. Lorenz, Revues et Annotées, H. Valentiner, 465
 Theory and Practice of Art Enamelling upon Metals, Henry Cunynghame, 466
 The Witness of Creation, Nature Sketches from the Book of Job, M. Cordelia Leigh, 466
 La Céramique Ancienne et Moderne, E. Guignet and E. Garnier, 466
 A Treatise on Crystallography, W. J. Lewis, Prof. H. A. Miers, F.R.S., 485
 Wilhelm Olbers, sein Leben und seine Werke, Dr. C. Schilling, Dr. J. L. E. Dreyer, 486
 Catalogue of a Collection of Objects illustrating the Folk-lore of Mexico, Prof. Frederick Starr, 488
 A First Book in Organic Evolution, D. Kerfoot Shute, 488
 Mining Engineers' Report Book, and Directors' and Shareholders' Guide to Mining Reports, Edwin R. Field, 489
 Flora of Kent, F. J. Hanbury and E. S. Marshall, 489
 Leitfaden für den Unterricht in der Anorganischen Chemie, Dr. Joachim Sperber, 489
 Aufgaben aus der Chemie und der physikalischen Chemie, Dr. P. Bräuer, 489
 Die Photometrie der Gestirne, Prof. Dr. G. Müller, 509
 Histoire des Mathématiques, J. Boyer, 510
 Théorie und Geschichte des photographischen Objectivs, Moritz von Rohr, 511
 Experiments on Animals, Stephen Paget, 512
 Cyclopaedia of Classified Dates, Charles E. Little, 513
 Justus von Liebig und Christian Friedrich Schönbein Briefwechsel, 1853-1868, Georg W. A. Kahlbaum und Eduard Thon, 513
 Cina e Giappone, E. von Hesse Wartegg, 513
 Practical Chemistry, William French, 514
 An Introduction to Qualitative Analysis, H. P. Highton, 514
 Essai de Chronologie des Temps Préhistoriques, M. Roisel, 514
 Photographs of Stars, Star Clusters and Nebulæ, together with Records of Results obtained in the Pursuit of Celestial Photography, Isaac Roberts, F.R.S., Dr. William J. S. Lockyer, 533
 A Complete Mosasaur's Skeleton and a Skeleton of Diploceras, H. F. Osborn, 534
 Temperate Chile, a Progressive Spain, W. Anderson Smith, Dr. Hugh Robert Mill, 536
 List of Published Names of Plants introduced to Cultivation, 1876-1896, Kew Bulletin of Miscellaneous Information, Dr. Maxwell T. Masters, F.R.S., 537
 Hand-list of Tender Dicotyledons Cultivated in the Royal Gardens, Kew, Dr. Maxwell T. Masters, F.R.S., 537
 Les Arbres à Gutta-percha, leur culture, Mission relativ à l'acclimatation de ces Arbres aux Antilles et la Guyane, Henri Lecomte, 538
 Determination of Radicles in Carbon Compounds, Dr. H. Meyer, 538
 Unités électriques absolues, Prof. G. Lippmann, 539
 Elementary Practical Physiography, J. Thornton, 539
 Atlas de Photomicrographie des Plantes Médicinales, Drs. Braemer et Suis, 539
 A Text-book of Physics, W. Watson, Prof. Hugh L. Callendar, F.R.S., 557
 Heat for Advanced Students, Edwin Edser, Prof. Hugh L. Callendar, F.R.S., 557
 Text-book of Experimental Physics, Eugene Lommel, Prof. Hugh L. Callendar, F.R.S., 557
 A Manual of Zoology, Prof. T. J. Parker and Prof. W. A. Haswell, 559
 An Elementary Course of Practical Zoology, Prof. T. J. Parker and Prof. W. N. Parker, 559
 Practical Exercises in Elementary Meteorology, Robert De Courcy Ward, 560
 Lectures on some of the Physical Properties of Soil, Robert Warington, F.R.S., 561
 Electric Wiring, Fittings, Switches and Lamps, W. Perren Maycock, 562
 Electric Bells and Alarms, F. E. Powell, 562
 Report of the Marine Biologist for the Year 1898, Cape of Good Hope Department of Agriculture, E. J. Allen, 562
 Science Course for Secondary Schools, G. Robb and J. Murguet, 562
 L'Échappement dans les Machines à Vapeur, G. Leloutre, 563
 Produits Aromatiques; Artificiels et Naturels, Dr. G. F. Jaubert, 563
 Grundzüge der geographisch-morphologischen Methode der Pflanzensystematik, Dr. R. von Wettstein, 563
 Dreams of a Spirit-seer, illustrated by Dreams of Metaphysics, Immanuel Kant, 563
 The Distribution of Income, William Smart, Sir R. Giffen, K.C.B., F.R.S., 581
 Practical Mathematics, Prof. John Perry, F.R.S., Prof. A. G. Greenhill, F.R.S., 582
 A System of Medicine by Many Writers, Dr. F. W. Tunnicliffe, 584
 A Book on Whales, F. E. Beddard, F.R.S., 585
 Microscopic Researches on Glycogen, Charles Creighton, 586
 The Elements of Alternating Currents, W. S. Franklin and R. B. Williamson, 587
 Oysters and Disease: an Account of Certain Observations upon the Normal and Pathological Histology and Bacteriology of the Oyster and other Shellfish, Profs. W. A. Herdman, F.R.S., and R. Boyce, 587
 Scientific Papers, John William Strutt, Baron Rayleigh, F.R.S., 588
 Ueber das System der Nagethiere; eine phylogenetische Studie, Tycho Tullberg, 588
 A Surgical Operating Table for the Horse, J. A. W. Dollar, 588
 The Birds of Celebes and the Neighbouring Islands, A. B. Meyer and L. W. Wiglesworth, 605
 Mine Drainage: being a Complete Practical Treatise on Direct Acting Underground Steam Pumping Machinery, Stephen Michell, Prof. W. Galloway, 606
 Text-book of Paleontology, Karl A. von Zittel, 608
 Les Étres Vivants. Organisation—Evolution, Paul Busquet, 609
 Notions de Minéralogie, A. F. Renard and F. Stöber, 610
 Muret-Sander's Encyclopedic English-German and German-English Dictionary, 610
 Die Elemente der Entwicklungslehre des Menschen und der Wirbeltiere, O. Hertwig, 610
 Reynolds (Joan Berenice), the Teaching of Geography in Switzerland and North Italy, 626
 Rhabdospheres, Coccospheres and, George Murray, F.R.S., 54
 Rhode Island, the Birds of, R. H. Howe, jun., and E. Sturtevant, 323
 Ribot (Prof. Th.), Evolution of General Ideas, 149
 Rice Culture in United States of America, Dr. S. A. Knapp, 401
 Richardson (Dr. S. W.), Magnetic Properties of Iron and Aluminium Alloys, 23

- Richarz (F.), Analysis of Oscillating Discharges by Means of Braun Tube, 627
- Richez (Ch.), Effect of Diet poor in Chlorides upon the Treatment of Epilepsy by Sodium Bromide, 120; Treatment of the Tuberculous by Zomotherapy, 459
- Richter (Dr. Eduard), Advance and Retreat of Alpine Glaciers during Ice Age, 207
- Rickmers (W. R.), Conglomerates of East Bokhara, 59
- Rideal (Dr. S.), Food-preserving Methods, 519
- Rider, the Fitting of the Cycle to its, R. E. Crompton, 87, 391; C. Crompton, 87; D. E. Hutchins, 368; Wm. H. Massey, 391
- Riecke (E.), Distribution of Free Electricity at Surface of Crookes' Tube, 262
- Rinderpest and Serotherapy in India, 157
- Ring Nebula in Lyra, Central Star of, W. Stratonoff, 260
- Ripper (Prof. W.), Technical Instruction in Relation to Industrial Progress, 356
- Rivers (Dr. W. H. R.), on the Investigations on Comparative Psychology made in Torres Straits and New Guinea, 43; on Two New Methods of Anthropological Research, 44
- Rizzo (Dr. G. B.), New Mode of using Concave Diffraction Grating, 501, 541
- Robb (G.), Science Course for Secondary Schools, 562
- Roberts (Dr. Isaac, F.R.S.), Photographs of Stars, Star Clusters and Nebulae, together with Records of Results obtained in the Pursuit of Celestial Photography, 533
- Roberts (Rev. W. R. W.), Studies in Integrals, 383
- Roberts-Austen (W. C., K.C.B., F.R.S.), Handbook of Metallurgy, Dr. Carl Schnabel, 199
- Robertson (Dr. W. G. A.), Diminished Digestive Activity of Saliva in Certain Diseases, 531
- Robinson (Rev. J. R.), a First Book in Statics and Dynamics, 365
- Robinson (Mark), on the Niclausse Water-tube Boiler, 21
- Rock Paintings, Grey's, H. Ling Roth, 248
- Rock Structures in Isle of Man and South Tyrol, G. W. Lamplugh, 612
- Rocking Microtome, a New, 115
- Rocques (X.), le Cidre, 342
- Rodents: Ueber das System der Nagethiere, Dr. Tycho Tullberg, 588
- Rogers (Mr.), the Orange River Ground Moraine near Prieska, 240
- Rohr (Moritz von), Theorie und Geschichte des photographischen Objectivs, 511
- Roisel (M.), Essai de Chronologie des Temps Préhistoric, 514
- Romney Marshes, on the Dymchurch Sea-wall and the Reclamation of the, Edward Case, 22
- Röntgen Rays, the Secondary, J. S. Townsend, 95; Chemical Action of Röntgen Rays, P. Villard, 143; Influence on Electrical Resistance of Selenium, M. Perreau, 167; Measurement of Velocity of Röntgen Rays, B. Brunhes, 311; Fluorescence of Metallic Compounds under Becquerel and Röntgen Rays, Paul Bary, 531; Duration of Emission of Röntgen Rays, B. Brunhes, 604; Negative Electrification of Secondary Rays produced by means of Röntgen Rays, P. Curie and G. Sagnac, 604
- Rosa (E. B.), Law of Conservation of Energy in Human Organism, 258
- Roscoe (Sir Henry E., F.R.S.), Inorganic Chemistry for Advanced Students, 125
- Rosenberg (F.), the Elements of Co-ordinate Geometry, 412
- Rosenstiel (A.), Yeast Increase without Fermentation in Presence of Limited Quantity of Air, 336
- Ross (Major Ronald), Malaria and Mosquitoes, 522
- Rostrum, the, of "Mesoplodon," Dr. Henry O. Forbes, 490
- Rotation Period of Venus, 574
- Roth (A. Lawrence), Meteorology at the Berlin Geographical Congress, 177; the Eclipse Wind, 589
- Roth (H. Ling), Grey's Rock Paintings, 248
- "Rotten Stone" Granite of East Finland, the, Boris Popoff, 285
- Rotterdam, the van 't Hoff Celebration at, Dr. H. M. Dawson, 321
- Roth (E.), Wehnelt's Electrolytic Interrupter, 48
- Rowe (Dr. A. W.), Zones in the Chalk, 625
- Rowland (S.), Influence of Temperature of Liquid Air on Bacteria, 603
- Royal Irish Academy, 143, 191, 383, 407, 507
- Royal Society, 93, 213, 262, 285, 311, 357, 405, 432, 480, 504, 529, 555, 577, 603; Medal Awards, 58; Anniversary Meeting of the, 137; the Royal Society Catalogue and Psychology, Prof. J. Mark Baldwin, 226
- Rubber, Mangabeira, 38
- Rubber, Possible Substitute for, "Velvril," W. F. Reid, 59
- Rubber, New Method for Extraction from *Landolphia* Bark of, A. Arnaud and A. Verneuil, 360
- Rubens (H.), Reflective Power of Metals, 555
- Rücker (Prof.), Antarctic Exploration, 19
- Rudiment, Anlage and, Prof. J. Mark Baldwin, 29
- Rudski (P.), the Elastic Properties of Rocks, 113
- Ruhemann (S.), Formation of Tetrazoline, 94; Heterocyclic Compounds, 405
- Rum, the Micro-organism of Faulty, V. H. Veley, F.R.S., and Lilian J. Veley, 468
- Rümker (Dr. G.), Death and Obituary Notice of, 473
- Rural Education, John C. Medd, 55; Prof. R. Meldola, F.R.S., 55; C. H. Bothamley, 55
- Rural Schools, Nature Study in, 553
- Russell (C. N.), Refuse Destruction and Steam-raising, 185
- Russell (E. J.), Combination of Sulphur Dioxide with Oxygen, 434; Influence of "Nascent State" on Combination of Dry Carbon Monoxide and Oxygen, 434
- Russell (H. C., F.R.S.), Current Papers, 167
- Russian Ice-breaker, *Yermak*, Account of the Trial Trip of the Great, Admiral Makaroff, 17
- Russian Geographical Society's Prize Awards, 397
- Rutley (Frank), Eruptive Rocks from New Zealand, 603
- Ryther (L. E.), the Focal Depth of Microscopic Objectives, 16
- Rzewuski (A. von), Electrolytic Interruption for Feeble Currents, 627
- Sabatier (Paul), Action of Copper on Acetylene, 360
- Sagnac (M.), Kinematical Theory of Propagation of Light, 136; Negative Electrification of Secondary Rays produced by means of Röntgen Rays, 604
- St. Louis Academy of Science, 215
- St. Petersburg University Society of Naturalists, Memoirs of, 285
- Salamander, the American Gilled and Blind, *Typhlopomolge*, Dr. Stejneger, 620
- Salmon-hatching in Norway, 39
- Salmon (E. S.), Peculiar Structures on Peritheces of Phylactinea Coryleæ, 46
- Salt Lake Problem, a Great, 204
- Salvadori (R.), New Lines in Infra-red Spectrum of Argon, 235
- Sand, Floating, F. W. Simonds, 500
- Sand-dunes Bordering the Delta of the Nile, on the, Vaughan Cornish, 20, 403
- Sandstone, the Old Red, of Shetland, 80
- Saner (J. A.), Pontoon-based Swing Bridges at Northwich, 327
- Sanitation: Death and Obituary Notice of Sir Richard Thorne Thorne, K.C.B., F.R.S., 183
- Sarawak, Native Life and Customs in, Prof. A. C. Haddon, 578; C. Hose, 578
- Savage Music in Murray Island and Sarawak, C. S. Myers, 42
- Scarcity, the Coming Wheat, Sir R. Giffen, K.C.B., F.R.S., 169
- Scenery, the Scientific Study of, John E. Marr, F.R.S., 441
- Schäffer (Dr. Hermann), Death of, 397
- Scharff (Dr. R. F.), the History of European Fauna, 341; a Pyrenean Land Planarian, 458
- Scheikunde, Begleiter der, Dr. M. C. Schuyten, 220
- Scheiner (Dr. J.), Die Photographie der Gestirne, 363; Variations in the Spectra of the Orion Nebula, 114
- Schlitz (Prof. W.), Botany and the Indian Forest Department, 6
- Schliep (Dr.), Atmospheric Electricity and Disease, 471
- Schmidt (W.), Hero of Alexandria, 202
- Schnabel (Dr. Carl), Handbook of Metallurgy, 199
- Scholl (Dr. R.), Constitution of Fulminates, 236
- Schönbein, the Letters of Faraday and, 1836-1862; with Notes, Comments, and References to Contemporary Letters, Prof. R. Meldola, F.R.S., 337
- Schönbein (Christian Friedrich), und Justus von Liebig-Briefwechsel, 1853-1868, Georg W. A. Kahlaum and Eduard Thon, 513

- School Dictionary of the English Language, the Standard Intermediate, James C. Fernald, 220
 School Gardens, G. B. Smith, 455
 School Science and Knowledge-making Power, G. H. Wyatt, 274
 Schools, Nature Study in Rural, 553
 Schools of Science, Chemistry for Organised, S. Parrish, 5
 Schott (Dr. Gerhard), on the Chief Results of the Voyage of the *Vuldivia*, 19
 Schrenk (Dr. H. von), a Fungus-disease of Cypress and Cedar, 452
 Schurt (Henry S.), Barisal Guns, 127
 Schuster (Prof. Arthur, F.R.S.), Elements of Physics, 27 ; Constitution of Electric Spark, 258
 Schuyten (Dr. M. C.), Beginseiten der Scheikunde, 220
 Schwalbe (Prof. G.), Esher's Theory of Atmospheric Electricity, 546, 554
 Schwarz (Mr.), the Orange River Ground Moraine near Prieska, 240 ; a Plesiosaurian from Uitenhage, Cape Colony, 544
 Schwatzschild (Dr. K.), Computation of Orbits of Spectroscopic Doubles, 521
 Science : Chemistry for Organised Schools of Science, S. Parrish, 5 ; Conference of German Men of Science at Munich, 62 ; Experimental Science (Physiography : Section i.), R. A. Gregory and A. T. Simmons, 77 ; Testimonial to Major-General Sir J. F. D. Donnelly, K.C.B., 132 ; the Relation between Science and Medicine, Sir J. Burdon Sanderson, Bart., 254 ; the Science of Land Form, 266 ; Science and Faith ; or, Man as an Animal and Man as a Member of Society ; with a Discussion of Animal Societies, Dr. Paul Topinard, 270 ; School Science and Knowledge-making Power, G. H. Wyatt, 274 ; Science Teachers in Conference, 283 ; the Scientific Basis of Morality, Dr. G. Gore, 389 ; a Century of Science and other Essays, John Fiske, 390 ; Mr. Balfour on Scientific Research, 395 ; the Scientific Memoirs of Thomas Henry Huxley, 440 ; Forthcoming Books of Science, 502 ; Science Course for Secondary Schools, G. Robb and J. Murguet, 562
 Scientific Lens-making, Moritz von Rohr, 511
 Scotland : The Silurian Rocks of Britain. Vol. i. Scotland, B. N. Peach, F.R.S., and J. Horne, 25 ; on *Thelodus* from the Old Sandstone of Forfarshire, and Report on the Fossil Fishes collected by the Geol. Survey of Scotland in the Silurian Rocks of the South of Scotland, R. H. Traquair, F.R.S., 307 ; Stone Circles in Scotland, A. L. Lewis, 530 ; Suicide in, Sir John Sibbald, 531
 Scott (A.), Pure Hydrobromic Acid, 530 ; New Sulphide of Arsenic, 530
 Scott (Dr. D. H., F.R.S.), the Sphenophyllales, 627
 Scott (Dr. R. H., F.R.S.), Diurnal Rain-ranges 1871-1890, 399 ; Percolation Experiments at Rothamsted, 435
 Sculpture, Natural Objects in Old Spanish, Dr. E. S. Fatigati, 15
 Scurvy, Bacterial Origin of, Prof. A. M. Lévin, 400
 Sea, Stockholm International Conference on the Exploration of the, 34 ; E. J. Allen, 54, 227, 275 ; Prof. W. A. Herdman, F.R.S., 78, 177 ; Geo. Murray, F.R.S., 102 ; H. M. Kyle, 151 ; Prof. Otto Pettersson, 413
 Sea, the Problem of Coaling at, 430
 Sea-angling, the Necessity for Legislative Regulation of, F. G. Afalo, 235
 Sea-fisheries of Jamaica, Mr. Duerden, 157
 Sea-fisheries : Report of Northumberland Committee for 1899, 354
 Sea-water, Optical Method of determining Density of, J. J. Manley, 286
 Seare (G. F. C.), Apparatus for Measuring Extension of Wires, 459
 Secular Perturbations of Venus, Prof. Eric Doolittle, 41
 Sederholm (J. J.), Archean Rocks of Finland, 373
 Seely (Prof. H. G., F.R.S.), Fossil Bird from Stonesfield Slate, 578
 Seismology : Bollettino della Società Sismologica Italiana, 23, 405, 504 ; Displacements in Khási and Gáro Hills during Indian-Earthquake of June 1897, 206 ; Seismology in Japan, Prof. Omori, 282 ; the Transcaucasian Earthquake of December 31, 1899, 303 ; Earthquake-sounds, Dr. C. Davison, 329 ; the Roman Earthquake of July 19, 1899, Prof. Tacchini, 422 ; Balikesri Earthquake of September 14, 1896, 504
 Dr. G. Agamennone, 500 ; British Earthquakes, 1893-9, Dr. C. Davison, 546 ; the Latian Earthquake of July 19, 1899, Dr. A. Cancani, 573 ; Californian Earthquake of December 25, 1899, Prof. E. W. Claypole, 595 ; the Propagation of Earthquake Motion to Great Distances, R. D. Oldham, 595 ; the Great Japanese Earthquake of 1891, Prof. Omori, 619 ; Earthquake Measurement in Brick Building, Prof. Omori, 619
 Seligmann (C. G.), Account of the Seclusion of Girls at Puberty in Mabuiag and other of the Western Islands of Torres Straits, and also on the Mainland at Cape York, 43 ; on the Club Houses and Dubus of British New Guinea, 43
 Seminase, Em. Bourquelot and H. Herissey, 384
 Senderens (T. B.), Action of Copper on Acetylene, 360
 Serotherapy : Snake-bite Cured by Calmette's Antivenene, Major S. J. Rennie, 85 ; Serotherapy and Rinderpest in India, 157 ; Indian Anti-typhoid Inoculations, Prof. A. E. Wright, 327 ; the Indian Plague and Haffkine's Inoculations, 422 ; Anti-plague Inoculations, 550 ; Serotherapy of Anthrax, S. Arloing, 459 ; Immunity against Symptomatic Carbuncle, 603
 Seta, I. Bachi da, Prof. Tito Nenci, 77
 Sewage-disposal, Bacteria and, Dr. Bachhold, 63
 Sewage-disposal, the Chicago Drainage Canal, 353
 Seward (A. C., F.R.S.), on a New Genus of Palaeozoic Plants, 69 ; on the Jurassic Flora of Britain, 69 ; on the Morphology and Geological History of the Maiden-hair Tree, 69 ; Jurassic Plants in Manchester Museum, 358 ; Wealden Plants from Bernissart, 359
 Sextant-telescopes, W. E. Plummer, 54
 Shadow, Halo Round a, Howard Fox, 7
 Shadows, Butterfly, Commander D. Wilson-Barker, 128
 Shadows of Insects, Wm. Parkinson, 177
 Shand (A. B.), Thermoelectric Properties of Mercury, 286
 Sharp (David), the Cambridge Natural History, 49
 Sharp (R. Bowdler, LL.D.), a Hand-list of the Genera and Species of Birds, 126
 Shaw (P. E.), Syntony, 529 ; Electrical Micrometer, 529
 Shelley (G. F.), the Birds of Africa, Comprising all the Species which Occur in the Ethiopian Region, 516
 Shenstone (W. A., F.R.S.), the Use of Silica in Thermometry, 540
 Sheppard (W. F.), Studies in Integrals, 459
 Shetland, the Old Red Sandstone of, 80
 Shute (Dr. D. Kerfoot), a First Book in Organic Evolution, 488
 Sibbald (Sir John), Suicide in Scotland, 531
 Sierra Leone, Report of the Malaria Expedition to, 614
 Sieveking (H.), Discharge of Statical Electricity from Points, 554
 Sigriste (G.), Apparatus for Instantaneous Photography producing Maximum Effect, 287
 Silica in Thermometry, the use of, W. A. Shenstone, F.R.S., 540
 Silk, Artificial, Joseph Cash, 156
 Silkworms : I. Bachi da Seta, Prof. Tito Nenci, 77 ; Formalin as a Preventive of Silkworm Disease, Prof. G. Gianoli and Dr. E. Zappa, 520
 Silurian Fish Remains, Some Recently Discovered, a Link in the Chain of Organic Evolution, R. H. Traquair, F.R.S., 306
 Silurian Rocks of Britain, the, Vol. i. Scotland, B. N. Peach, F.R.S., and J. Horne, 25
 Silver, the Metallurgy of Lead and, Henry F. Collins, 198
 "Silver Thread" Phenomenon, the, in Giggleswick Well, Dr. Broadbent, 70
 Simla, the Air Movement at, and in the Western Himalayas, 380
 Simmons (A. T.), Experimental Science (Physiography : Section I.), 77 ; the South-western Polytechnic, 208 ; Exercises in Practical Physics, 390
 Simon (L. J.), Isopyrometric Acid, 360
 Simon (S.), Ratio of Electric Charge to Mass in Kathode Particles, 190
 Simonds (F. W.), Floating Sand, 500
 Sinclair (W. F.), the Indian Forest Service, 31 ; Indian Corn, 445
 Singapore, Notes on the Occurrence of *Amphioxus* at, F. P. Bedford, 444
 Skye, Isle of, Magnetic Disturbances in, Alfred Harker, 459

- Slime Moulds, the North American, Prof. T. H. MacBride, 173
 Slocum (S. E.), the Chief Theorem of Lie's Theory of Continuous Groups, 572
 Smart (Prof. William), the Distribution of Income, Sir. R. Giffen, F.R.S., 581
 Smell, New Theory of, MM. Vaschide and Van Melle, 240
 Smell Emitted by Quartz when Rubbed, the, E. L. Garbett, 491
 Smiles (S.), Action of Alkyl Iodide on Fatty Mercuric Iodide Sulphides, 264 ; Attempts to Resolve into Active Constituents, Compounds containing Asymmetric Sulphur Atoms, 373
 Smith (Alexander), Laboratory Outline of General Chemistry, 27
 Smith (Charles), Euclid, Books I.-IV., 102
 Smith (E. F.), the "Wilt" Disease of Cotton, &c., 186
 Smith (Fred), the Boyhood of a Naturalist, 246
 Smith (G. B.), School Gardens, 455
 Smith (G. H. F.), New Three-circle Goniometer, 113
 Smith (H. G.), Eudesmol, 47 ; the Essential Oil of *Darwinia fascicularis*, 483
 Smith (N.), Combination of Sulphur Dioxide with Oxygen, 434
 Smith (W. Anderson), Temperate Chile, a Progressive Spain, 536
 Smits (Dr. A.), Decrease in Tension of Solution Vapours at 0°, 72
 Smyrna, Earthquake at, 302
 Smyth (Sir Warington W., F.R.S.), a Rudimentary Treatise on Coal and Coal Mining, 411
 Snake-bite Cured by Calmette's Antivenene, Major S. J. Rennie, 85
 Snyder (Dr. V.), Cyclical Quartic Surfaces in Space of n Dimensions, 554
 Snyder (W. H.), Physical Geography, 266
 Soap Bubbles, O. Dörge, 432
 Sodeau (W. H.), the Decomposition of Lead Chlorate, 627
 Soil, the Bacteriology of the, Thos. T. Watson, 515
 Soil, Lectures on Some of the Physical Properties of, R. W. Warington, F.R.S., 561
 Solar Activity, the Relation between the Periodic Changes of, and the Earth's Motion, Dr. J. Halm, 445
 Solar Eclipses in the Twentieth Century, M. Camille Flammarion, 548
 Solar Eclipses, Photometric Observations of Mercury during, Dr. G. Müller, 574
 Solar Parallax, the, M. Bouquet de la Grye, 236
 Solid and Gaseous Bodies, the Absorption of the Becquerel Rays by, Hon. R. J. Strutt, 539
 Sollas (Prof. W. J.; F.R.S.), New Crinoidea, 382 ; Oldhamia, 382
 Solomon (M.), Damping of Galvanometer Needles, 481
 Solomon Islands, Ethnography of, R. Parkinson, 546
 Solution of the Quartic, Prof. G. B. Mathews, F.R.S., 55
 Somerville (Prof. W.), Eradication of Charlock by Spraying, 619
 Sooper (George A.), the Capture of Butterflies by Birds, 491
 Souef (D. le), the Newly-born Kangaroo, 423
 Soulange Canal, the, 40
 South African Philosophical Society, 240, 436
 South Tyrol and the Isle of Man, Similar Geological Structures in, Dr. Maria M. Gordon, 490
 Southwell (T.), the Whale Fishery for 1899, 451
 Spain : Natural Objects in Old Spanish Sculpture, Dr. E. S. Fatigati, 15 ; Temperate Chile, a Progressive Spain, W. Anderson Smith, Dr. Hugo Robert Mill, 536
 Specific Heat of Marble, Prof. B. O. Peirce and Robert W. Willson, 367
 Spectrum Analysis : Some Remarks on Radiation Phenomena in a Magnetic Field, Prof. Thomas Preston, F.R.S., 11 ; Influence of Impurities on Gaseous Spectrum, P. Lewis, 93 ; Spectrophotometry of Electric Light, Fernand Gaud, 95 ; Spectroscopic Binaries, a Aurige, Prof. W. W. Campbell, 114 ; a Urse Minoris, Prof. W. W. Campbell, 114 ; Prof. E. B. Frost, 114 ; Variations in the Spectrum of Orion Nebula, Prof. Scheiner, 114 ; the Methods of Inorganic Evolution, Sir Norman Lockyer, K.C.B., F.R.S., 129, 296 ; Spectrum of P Cygni, Herr A. Belopolsky, 137 ; the Piscian Stars, Sir Norman Lockyer, K.C.B., F.R.S., 213 ; Absorption Spectra of Solutions of Didymium and Erbium Salts, Prof. Liveing, 214 ; New Lines in Infra-red Spectrum of Argon, R. Nasini, F. Anderlini, and R. Salvadori, 235 ; Constitution of Electric Spark, G. A. Hemsalech and Prof. Schuster, 258 ; Spectrum of Silicium, Sir Norman Lockyer, K.C.B., F.R.S., 262 ; Preliminary Table of Wave-lengths of Enhanced Lines, Sir Norman Lockyer, K.C.B., F.R.S., 263 ; Echelon Film Gratings, Charles P. Butler, 275 ; Polarised Light in Magnetic Field, R. Dongier, 360 ; New Source of Light for Spectrometry of Precision, Ch. Fabry and A. Petro, 407 ; Asymmetrical Change in Spectral Lines of Iron Radiating in Magnetic Field, Dr. P. Zeeman, 408 ; Determination of Standard Lines in Spectrum, Maurice Hamy, 435 ; Constitution of Yellow Sodium Rays, Ch. Fabry and A. Perot, 483 ; New Mode of Using Concave Diffraction Grating, Dr. G. B. Rizzo, 501, 541 ; Determination of Standard Points in Spectrum, Maurice Hamy, 507 ; New System of Spectrum Photometry, Prof. D. B. Brace, 521 ; Computation of Orbits of Spectroscopic Doubles, Dr. K. Schwarzschild, 521 ; Rock-salt as a Refraction Standard, Prof. S. P. Langley, 545 ; The Wastefulness of Artificial Lights, C. G. Abbot, 546 ; Reflective Power of Metals, E. Hagen and H. Rubens, 555 ; Photographs of Aurora Spectrum, M. Paulsen, 621
 Spencer (A. C.), Devonian Strata in Colorado, 432
 Spengel (Dr. J. W.), Ueber Einige Aberrationen von Papilio machaon, 316
 Sperber (Dr. Joachim), Leitfaden für den Unterricht in der Anorganischen Chemie, 489
 Spiers (F. S.), Contact Electricity, 70
 Spinning Top, the, Lord Kelvin, 166
 Spiral Nebula, Predominance of, Prof. J. E. Keeler, 87
 Sport, Fifteen Years', and Life in the Hunting Grounds of Western America and British Columbia, W. A. Baillie-Grohman, 566
 Sprankling (C. H. G.), Sym-dipropyl, Sym-diisopropyl and α -propylisopropyl-succinic Acid, 530
 Spurr (J. E.), Geology of Aspen Mining District, Colorado, 601
 Stallo (J. B.), Death of, 279
 Standen (R.), Mollusca of Kolnnev and Franz Josef Land, 143
 Stanford (E. C. C.), Death and Obituary Notice of, 184
 Stanford's Compendium of Geography and Travel (New Issue) in Europe (Vol. i.) and the Countries of the Mainland (excluding the North-west), Geo. G. Chisholm, 368
 Stapleton (H. E.), Formation of Tetrazoline, 94 ; Heterocyclic Compounds, 405
 Star-fish, the Feather-stars of the Bahamas, Prof. Verrill, 16
 Star-land, Sir Robert S. Ball, F.R.S., 294
 Stark (A. C.), Death and Obituary Notice of, 155
 Stark (A. C.), the Fauna of South Africa—Birds, 516
 Stark (J.), Electrostatic Effects in Connection with Vacuum Discharges, 555 ; Influence of Heating on Passage of Electricity through Rarefied Gases, 572
 Starr (Prof. Frederick), Catalogue of a Collection of Objects Illustrating the Folk-lore of Mexico, 488
 Stars : on the Distribution of the Various Chemical Groups of Stars, ii, Sir Norman Lockyer, K.C.B., F.R.S., 8 ; New Variable Star, 17 ; New Algol Variable in Cygnus, 17 ; Light Curve of Ceraski's First Algol Variable, 355 ; Second New Variable in Cygnus, Madame Ceraski, 355 ; Ceraski's Second Algol Variable, Prof. E. C. Pickering, 454 ; New Variable in Cygnus, 501 ; Elliptic Elements of the Variable γ Cygni, Prof. N. C. Dunér, 574 ; Spectroscopic Binaries, a Aurige, Prof. W. W. Campbell, 114 ; a Urse Minoris, Prof. W. W. Campbell, 114 ; Prof. E. B. Frost, 114, Mercury and Jupiter as Morning Stars, 137 ; Central Star of Ring Nebula in Lyra, W. Strattonoff, 260 ; Reduction of Star Photographs, A. R. Hinks, 355 ; New Variable Star in Draco, Dr. T. D. Anderson, 374 ; a Possible Cause of the Variability of Stars, Dr. G. Johnstone Stoney, F.R.S., 443 ; Variable Stars of the Algol Type, H. C. Wilson, 521 ; Photographs of Stars, Star Clusters and Nebulae, together with Records of Results obtained in the Pursuit of Celestial Photography, Dr. Isaac Roberts, F.R.S., Dr. William J. S. Lockyer, 533 ; New Variable in Andromeda, Dr. T. D. Anderson, 547
 Stassano (Henri), Affinities of Vascular Endothelium, 24
 Statics and Dynamics, a First Book in, Rev. J. R. Robinson, 365
 Statistics : Statistical Methods, with Special Reference to Biological Variation, C. B. Davenport, 149 ; Internal Migration in England and Wales, Prof. A. W. Flux, 383
 Steam, Recent Experiences with, on Common Roads, Mr. Thornycroft, 22

- Steam Engine and Gas and Oil Engines, the, Prof. John Perry, F.R.S., 100; Steam Turbines, Motive Power, High Speed Navigation, Hon. C. A. Parsons, F.R.S., 424
Steam, Superheated, Thermodynamic Properties of, J. H. Grindley, 432
Steam : L'Echappement dans les Machines à Vapeur, G. Letourne, 563
Stebbing (E. P.), Indian Forest Insect-pests, 38
Stebbing (Rev. T. R. R.), on the Living Subterranean Fauna of Great Britain and Ireland, 116
Steiger (G.), Action of Ammonium Chloride on Analcite and Leucite, 432
Stejneger (Dr.), *Typhlomolge*, the American Gilled and Blind Salamander, 620
Stephens (T.), Diabœs Intrusion in Tasmanian Permo-Carboniferous Rocks, 286
Stereochemistry : Stereochemistry and Physiology, Prof. Emil Fischer, 140; Zur Stereochemie des fünfwertigen Stickstoffes mit besonderer Berücksichtigung des asymmetrischen Stickstoffes in der aromatischen Reihe, Edgar Wedekind, 199
Steuart (D. S. S.), Mineral Wealth of Zoutpansberg, 281
Stewart (A. M.), Handbook of Physics and Chemistry, 221
Stewart (Sir T. G.), Death and Obituary Notice of, 352
Stirling (Dr. E. C., F.R.S.), Memoirs of Royal Society of South Australia, 275
Stobbe (Dr. H.), Condensation Products of Benzaldehyde with Succinic Ether, 63
Stöber (F.), Notions de Mineralogie, 610
Stock (Alfred), New Method of determining Aluminium, 336; Volumetric Estimation of Boric Acid, 435
Stockholm International Fisheries Conference on the Exploration of the Sea, 34; E. J. Allen, 54, 227, 275; Prof. W. A. Herdman, F.R.S., 78, 177; George Murray, F.R.S., 102; H. M. Kyle, 151; Prof. Otto Pettersson, 413
Stokes (Sir George), Bust of, Prof. John Perry, F.R.S., 102
Stokes (Sir G. G., Bart., F.R.S.), The Effects of Lightning upon Electric Lamps, 343, 413, 539
Stone (G. H.), Glaciation of Central Idaho, 310
Stone Circles in Scotland, A. L. Lewis, 530
Stones, Floating, Dr. Erland Nordenskiöld, 278; Cecil Carus-Wilson, 318; R. C. T. Evans, 318; Prof. A. W. Brightmore, 346
Stoney (Dr. G. Johnstone, F.R.S.), Next Week's Leonid Shower, 28; the Leonids, 81; Possible Cause of the Variability of Stars, 443; Escape of Gases from Planetary Atmospheres, 515
Story of the Wanderings of Atoms, the, especially those of Carbon, M. M. Pattison-Muir, 126
Stratonoff (W.), Central Star of Ring Nebula in Lyra, 260
Strength of Materials, the, Prof. J. A. Ewing, F.R.S., 197
Stromeyer (C. E.), Origin of Granite, 358
Structure of the Inner Corona, the, Prof. S. P. Langley, For. M.R.S., 443
Strutt (Hon. R. J.), the Absorption of the Becquerel Rays by Solid and Gaseous Bodies, 539
Students' Edition of a Standard Dictionary of the English Language, James C. Fernald, 220
Students' Flora of New Zealand, the, and the Outlying Islands, Thomas Kirk, W. Botting Hemsley, F.R.S., 146
Sturtevant (E.), the Birds of Rhode Island, 323
Submarine Boat, the *Holland*, 135
Submarine Cables, the Action of Electric Tramways on Land End of, Prof. Andrew Jamieson, 595
Subterranean Inflow, a Canadian Lake of, Andrew T. Drummond, 128
Suez Canal, on the Engineering Works of the, Sir Charles Hartley, 21
Sutfolk (W. T.), Death of, 256
Sugar : Researches in the Sugar Group, H. J. H. Fenton and H. Jackson, 215; Les Sucres et leurs principaux Dérivés, Prof. L. Macquenne, Prof. R. Meldola, F.R.S., 461; Sugar as a Heat Producer in Fasting Animals, Prof. U. Mosso, 476
Suicide in Scotland, Sir John Sibbald, 531
Suis (Dr.), Atlas de Photomicrographie des Plantes Médicinales, 539
Sulphate of Ammonia in Agriculture, the Utility of, James Muir, 101
Sulphur Atoms, Attempts to Resolve into Active Constituents Compounds containing Assymmetric, S. Smiles, W. J. Pope and S. J. Peachey, 373
Sulphur, True Molecular Weight of Gaseous, O. Bleier and L. Kohn, 373
Sun : the Wind during Eclipses of the Sun, John W. Evans, 200; A. L. Rotch, 589; the Approaching Total Eclipse of the Sun, 201
Sunset Colours, Cause of Recent, Horace Darwin, 128
Sunshine, a Brilliant Meteor in, 306
Surgery : a Treatise for Students and Practitioners, Thomas Pickering Pick, 76; a Manual of Surgical Treatment, Prof. W. Watson Cheyne and F. F. Burghard, 176; Death of Sir James Paget, F.R.S., 234; Obituary Notice of, Dr. F. W. Tunnicliffe, 256; Death and Obituary Notice of Sir A. D. Maclagan, 571
Surveying and Geodesy, Elements of Precise, Prof. Mansfield Merriman, Sir C. W. Wilson, K.C.B., F.R.S., 77
Surveying, a Treatise on, R. E. Middleton and O. Chadwick, 150
Sussex, South-west, Geography of, Dr. H. R. Mill, 353
Suter (William Norwood), Handbook of Optics for Students of Ophthalmology, 149
Swift, Comet, Refraction Effect of (1889, I.), Prof. C. D. Perrine, 87
Swinton (A. A. C.), Electric Light Wires and Dust, 612
Switzerland and North Italy, the Teaching of Geography in, Joan Berenice Reynolds, 126
Swyngedauw (R.), Experimental Study of Hertz Exciter, 507
Sylvia in Flowerland, Linda Gardiner, 102
Symmetry and Asymmetry in Animals, Dr. L. Reh, 186
Symons (G. J.), Meteorological Extremes. II. Temperature, 22
Symons (Geo. James, F.R.S.), Death and Obituary Notice of, 475
Symons's Monthly Meteorological Magazine, 22, 238, 310, 457, 627
Syntony, P. E. Shaw, 529
System of Medicine by many Writers, edited by Prof. T. C. Allbutt, F.R.S., Dr. F. W. Tunnicliffe, 584
Szawasy (E.), Electrolytic Preparation of Induline Dyes, 94; Electrolysis of Nitrogen Hydrides and Hydroxylamine Amine, 335
Szczepanik's Photographic Process of Preparing Textile Designs, Prof. R. Beaumont, 14
Taccini (Prof.), the Roman Earthquake of July 19, 1899, 422
Tadpoles' Tails, Experiments on Growth of, R. G. Harrison, 206
Tafel (J.), the Course of Electrolytic Reduction, 63
Tait (Prof. P. G.), Newton's Laws of Motion, 265
Tallberg (Dr. Tycho), Ueber das System der Nagethiera, 588
Tammann (G.), Relation between Electric Conductivity and Pressure, 262
Tammes (Miss Tiné), Pomum in Pomo, 408
Tanret (C. and G.), Rhamninose, 71
Tarry (Harold), Observations of the Leonids, 143
Taste, Measurement of, Ed. Toulouse and N. Vaschide, 532
Tatton (R. A.), the Purification of Trade Waste, 281
Taylor (R. L.), Action of Iodine on Alkalies, 530
Technical Education : Rural Education, John C. Medd, 55; Prof. R. Meldola, F.R.S., 55; C. H. Bothamley, 55; American Higher Technical Education, Prof. F. W. Burstall, 299
Technical Instruction in Relation to Industrial Progress, Prof. W. Ripper, 356
Teeth, Supernumerary, W. L. H. Duckworth and D. H. Fraser, 482
Telegraphy : Recent Developments of Wireless, 78; Marconi Wireless Telegraphy in U.S.A., 185; a History of Wireless Telegraphy, J. J. Fahie, 243; La Télégraphie Sans Fils, André Broca, 243; Wireless Telegraphy between Chamounix and Mont Blanc, Léon and Louis Lecarme, 280; Wireless Telegraphy in the War, 350; Wireless Telegraphy, G. Marconi, 377; Use of New Radio-conductors for, C. Tissot, 579; Syntony, P. E. Shaw, 529
Telephones and Lightning Discharges, A. R. Hunt, 368
Telephotography, Thomas R. Dallmeyer, 315
Telescopes : Long Focus Photographic Telescope, 41; the Great Paris Telescope, Sir Norman Lockyer, K.C.B., F.R.S., 178; Sextant-telescopes, W. E. Plummer, 54
Temperate Chile : a Progressive Spain, W. Anderson Smith, Dr. Hugh Robert Mill, 536
Temperature, Underground, J. L. C. Rae, E. F. Pittman, and Prof. T. W. E. David, 484

- Temple (Colonel R. C.), on the Thirty-seven Nats (or Spirits) of the Burmese, 44
- Tennant (Lieut.-General), a Photograph of Clouds, 14
- Test Papers, Indicators and, Alfred I. Cohn, 269
- Textile Designs, Szczepanik's Photographic Process of Preparing, Prof. R. Beaumont, 14
- Thelodus Pagei*, on, from the Old Red Sandstone of Forfarshire, and Report on the Fossil Fishes collected by the Geological Survey of Scotland in the Silurian Rocks of the South of Scotland, R. H. Traquair, F.R.S., 306
- Therapeutics: Effect of a Diet Poor in Chlorides upon the Treatment of Epilepsy by Sodium Bromide, Ch. Richet and Ed. Toulouse, 120; Action of High Tension Currents of High Frequency on Tuberculosis, E. Doumer, 459; Treatment by Zomotherapy of the Tuberculous, J. Héricourt and Ch. Richet, 459
- Thermodynamics: Traité Élémentaire de Mécanique Chimique, fondée sur la Thermodynamique, P. Duhem, Prof. G. H. Bryan, F.R.S., 73; the Steam Engine and Gas and Oil Engines, Prof. John Perry, F.R.S., 100; Gibbs's Thermodynamical Model, W. B. Boynton, 414
- Thermometers, Quartz, M. Dufour, 521, 531
- Thermometry, the Use of Silica in, W. A. Shenstone, F.R.S., 540
- Thoinot (Dr. L. H.), Outlines of Bacteriology, 221
- Thomas (O.), Mammals of Mount Kenya, 458
- Thomas (V.), Action of Nitric Oxide in Chromic Dichlorhydrin, 120
- Thompson (Prof. S. P.), Obliquely Crossed Cylindrical Lenses, 164; Crystallised Naphthalin and its Refractive Properties, 165
- Thomson (Geo. M.), Fertilisation of Flowers in New Zealand, 564
- Thomson (Prof. J. J.), Ionisation of Gases in Electric Field, 458
- Thon (Eduard), Justus von Liebig and Christian Friedrich Schönbein, Briefwechsel 1853-1868, 513
- Thorne (Sir Richard Thorne, K.C.B., F.R.S.), Death and Obituary Notice of, 183
- Thornton (J.), Elementary Practical Physiography, 539
- Thornycroft (Mr.), on some Recent Experiences with Steam on Common Roads, 22
- Thorpe (William), Death of, 475
- Thouvenin (M.), Effect of Longitudinal Traction in Plant-stems, 483
- Tidal Forecasts, Indian, 303
- Tides along the Antarctic Continent, R. A. Harris, 490
- Tidwell (Dr. F.), the "Emerods" of the Bible Bubonic Plague, 501
- Tiemann (Prof. Ferdinand), Death of, 84; Obituary Notice of, 133
- Tiflis, Earthquake in, 256
- Tillo (General Alexis de), Death of, 326; Obituary Notice of, 396
- Tillo (General), the Lukchun (Central Asia) Depression, 328
- Tilman (S. E.), Descriptive General Chemistry, 175
- Time, Meridian of Universals, 158
- Time Used in Ephemerides, 374
- Tin, the Velocity Change of White into Grey, Dr. Cohen, 573
- Tissot (C.), Use of New Radio-conductors for Wireless Telegraphy, 579
- Toeppler (Mr.), Behaviour of Brisk Discharge in Magnetic Field, 190
- Tompkins (B.), the Theory of Water Finding by the Divining Rod: its History, Method, Utility and Practice, 1
- Torpedoes below Water, Method which has been developed at Elswick for Discharging, from the Broadside of a Ship when Steaming at a High Speed, Captain Lloyd, 21
- Torsion, Resistance of certain forms of Shafting to, and Effect of Keyways thereon, L. N. G. Filon, 93
- Torsion, Constants of Iron and Steel, Dr. Peddie, 359
- Toulouse (Ed.), Effect of Diet poor in Chlorides upon the Treatment of Epilepsy by Sodium Bromide, 120; New Method of Measuring Thermal Sensibility, 336; New Method of Measuring Acuteness of Hearing for Intensity of Sound, 436; Measurement of Taste, 532
- Townsend (J. S.), The Secondary Röntgen Rays, 95
- Trade Waste, the Purification of, R. A. Tatton, 281
- Training, Liberal, the Utility of Knowledge-making as a Means of, Prof. J. G. Macgregor, 159; G. H. Wyatt, 274
- Transactions of American Mathematical Society, 504
- Traquair (R. H., F.R.S.), on *Thelodus Pagei* from the Old Red Sandstone of Forfarshire, and Report on the Fossil Fishes collected by the Geological Survey of Scotland in the Silurian Rocks of the South of Scotland, 306
- Traumüller (Dr. F.), Geschichte der Physikalischen Experimentierkunst, 4
- Trépied (C. H.), Observations of the Leonids, 143
- Trigonometry, Elementary, A. J. Pressland and Charles Tweedie, 390
- Trillat (A.), Colouring Matter of Digitalis, 144
- Tripos, the Mathematical, 106, Prof. G. H. Bryan, F.R.S., 340
- Tropical Diseases, Liverpool School of, 342
- Tropical Medicine: Malaria and Mosquitoes, Major Ronald Ross, 522
- Tropics (Ceylon), an English Station for Botanical Research in the, John C. Willis, 32
- Trouton (Mr.), Apparatus for determining Heat required to evaporate Steam from saturated Salt Solutions, 143
- Trouton (Dr. Fred T., F.R.S.), Suggested Source of the Energy of the Beccquerel Rays, 443
- Tuberculosis, Action of High-tension, High-frequency Currents on, E. Doumer, 459; Treatment by Zomotherapy, J. Héricourt and Charles Richet, 459
- Tunnicliffe (Dr. F. W.), Obituary Notice of Sir James Paget, Bart., F.R.S., 256; Obituary Notice of Dr. William Marct, F.R.S., 497; a System of Medicine by Many Writers, edited by Prof. T. C. Allbutt, F.R.S., 584
- Turbines, Steam, Motive Power, High Speed Navigation, Hon. C. A. Parsons, F.R.S., 424
- Turpaine (A.), Recherches Expérimentales sur les Oscillations Électriques, 268; the Various Patterns of Wehnelt Interrupter, 407
- Tweedie (Charles), Elementary Trigonometry, 390
- Twin Refractor at Potsdam, the New, 479
- Tyndall's Ice Crystals, 590
- Types of British Animals, F. G. Aflalo, 77
- Typhlomolge*, the American Gilled and Blind Salamander, Dr. Stejneger, 620
- Tyrurin (V. A.), Electro-culture, 602
- Undercurrents, Rear Admiral W. J. L. Wharton, K.C.B., F.R.S., 29
- Underground Temperature, J. L. C. Rae, E. F. Pittman and Prof. T. W. E. David, 484
- United Kingdom, Geological Survey of the, 181
- United States: Biological Lectures from the Marine Biological Laboratory, Woods Hole, Massachusetts, 1898, 244; United States Naval Observatory, 330; Rice Culture in U.S.A., Dr. S. A. Knapp, 401; Marconi Wireless Telegraphy in U.S.A., 185
- Universal Time, Meridian of, 158
- Universities: University Intelligence, 22, 45, 69, 92, 118, 141, 164, 189, 212, 238, 261, 284, 309, 333, 357, 381, 404, 431, 456, 479, 503, 528, 554, 577, 625; the Proposed Changes in the Cambridge Mathematical Tripos, 106; Prof. G. H. Bryan, F.R.S., 346; the Indian University of Research, 260; the University of London, 369, 492; Representation of the University of London, 275; the London University Election, 299, 324; Rev. Dr. A. Irving, 318; the Position that Universities should take in regard to Investigation, 417; Hartley Botanical Laboratories of University College, Liverpool, 454
- Upheaval in Vanua Levu, Fiji, Evidence of, Dr. H. B. Guppy, 248
- Uric Acid, Recent Researches on, Prof. Emil Fischer, 187
- Urse Minoris, Spectroscopic Binary Stars, Prof. W. W. Campbell, 114; Prof. E. B. Frost, 114
- Utility of Sulphate of Ammonia in Agriculture, the, James Muir, 101
- Valentiner (H.), Ouvres Scientifiques de L. Lorenz, 465
- Valeur (Anand), Estimation of Halogens in Organic Compounds, 239
- Valve Motions of Engines, Prof. John Perry, F.R.S., 152
- Vanhamme (W. G.), the Planarians, 15
- Vannutelli (L.), Seconda Spedizione Bottego. L'omo. Viaggio d'Esplorazione nell'Africa Orientale, 75
- Vanua Levu, Fiji, Evidence of Upheaval in, Dr. H. B. Guppy, 248

Variable in Cygnus, 355; S, 355; C, 454; in Draconis, 443; V, New Variables, 574; Variation, Dr. H. Variation, Vaschide, Measured, Measured, Measured, Vector D, Vegetable, Veley (V. Rum, Velvilk, Venetia, Ventilati, Venus: 41; Verneuil (Landa, Vernon, Verrill (Vertebrata, Veterina, J. A. Vibrations, Vieille (of Co. Projects, Vignon in Gas, Vigouroux, Villard (of Elec. and F. Ville (J. 556 Villiers, Vincent, Violuric, Abegg, Visconti (G. Par, Viticultur, Delach, Vine, Vivisection, Vizadiu, K. C. Voelcker, Copper, Volcanic, Volumat, Voluntary, Vowels, Reco, Vries (

Waage, 412 Waage, Waals, Wager, Years, Wake, Wood, Wake, 500, Walde, Solve, Walke

- Variable Stars : New Variable Star, 17 ; New Algol Variable in Cygnus, 17 ; Light Curve of Cerasiki's First Algol Variable, 355 ; Second New Variable in Cygnus, Madame Cerasiki, 355 ; Cerasiki's Second Algol Variable, Prof. E. C. Pickering, 454 ; New Variable in Cygnus, 501 ; New Variable Star in Draco, Dr. T. D. Anderson, 374 ; a Possible Cause of the Variability of Stars, Dr. G. Johnstone Stoney, F.R.S., 443 ; Variable Stars of the Algol Type, H. C. Wilson, 521 ; New Variable in Andromeda, Dr. T. D. Anderson, 547 ; Elliptic Elements of the Variable Y Cygni, Prof. N. C. Dunér, 574.
- Variation, New Data for the Study of, 316 ; Certain Laws of, Dr. H. M. Vernon, 577
- Variation of Latitude, Prof. Th. Albrecht, 574
- Vaschide (M.), New Theory of Smell, 240 ; New Method of Measuring Thermal Sensibility, 336 ; New Method of Measuring Acuteness of Hearing for Intensity of Sound, 436 ; Measurement of Taste, 532
- Vector Diagrams, Dr. C. Chree, F.R.S., 490
- Vegetable Physiology. *See* Botany.
- Veley (V. H. and Lilian J.), the Micro-organism of Faulty Rum, 468
- Velvill, W. F. Reid, 59
- Venetia, Earthquake in, 450
- Ventilation, Natural and Artificial Methods of, 6
- Venus : Secular Perturbations of Venus, Prof. Eric Doolittle, 41 ; Rotation Period of, 574
- Verneuil (A.), New Method for Extraction of Rubber from *Landolphia* Bark, 360
- Vernon (Dr. H. M.), Certain Laws of Variation, 577
- Verrill (Prof.), the Feather-stars of the Bahamas, 16
- Vertebrates, Origin of Paired Limbs of, J. G. Kerr, 166
- Veterinary Surgery, a Surgical Operating Table for the Horse, J. A. W. Dollar, 588
- Vibrations of Gun Barrels, C. Cranz, K. R. Koch, 58
- Vieille (Paul), Discontinuities Produced by Brusque Expansion of Compressed Gases, 239 ; Law of Aerial Resistance to Projectiles, 359
- Vignon (Léo), Rapid Method for Determining Carbonic Acid in Gaseous Mixtures, 435
- Vigouroux (E.), Molybdenum Silicide, 239
- Villard (P.), Chemical Action of Röntgen Rays, 143 ; Discharge of Electrified Bodies and Ozone-formation, 311 ; Reflection and Reaction of Kathode and Deviable Radium Rays, 604
- Ville (J.), New Compound of Antipyrin with Mercuric Chloride, 556
- Villiers (A.), Estimation of Ammonia and Nitrogen, 459
- Vincent (J. H.), Impact, 507
- Violaric Acid, Use in Calometric Investigations of, Prof. Abegg, 402
- Viscosity of Water near 4° C., Variations in Coefficient of, Dr. G. Pacher, 61
- Viticulture ; a Caucasian Vine Disease, MM. Prillieux and Delacroix, 383 ; Physiological Phenomena of Chlorosis in Vine, Georges Curte, 628
- Vivisection : Experiments on Animals, Stephen Paget, 512
- Vizauding, the Eclipse Expedition at, Sir Norman Lockyer, K.C.B., F.R.S., 229, 249
- Voelcker (Dr. J. A.), the Agricultural Use of Sulphate of Copper, 281
- Volcanoes ; the Etna Eruption of July 19, 1899, 185
- Volumetric Analysis, John B. Coppock, 317
- Voluntary Enlistment, Racial Aspect of, R. C. T. Evans, 200
- Vowels, the Acoustic Analysis of the, from the Phonographic Record, Prof. Louis Bevier, 467
- Vries (H. de), Law of Separation of Hybrids, 556
- Waage (P.), Untersuchungen über die Chemischen Affinitäten, 412
- Waagen (Dr. W.), Death and Obituary Notice of, 545
- Waals (J. Van der, Jun.), Entropy of Radiation, 407
- Wager (Harold), On the Phosphorus-containing Elements in Yeast, 66
- Wake (Richard), the New Education. Manual Training : Woodwork, 53
- Walcott (C. D.), Lower Cambrian Terrane in Atlantic Province, 500
- Walden (Prof.), Liquid Sulphur Dioxide as an Ionising Solvent, 114
- Walker (G. W.), Gas Distribution in Electric Field, 481
- Walker (J.), Solid Ammonium Cyanate, 119 ; Campholytic and Isolauronic Acids, 505
- Walker (J. J., F.R.S.), Obituary Notice of, 618
- Wallace (Dr. Alfred R., F.R.S.), Is New Zealand a Zoological Region ? 273
- Wallace (Dr. Robert), the African Horse-sickness, 235
- Wallerant (F.), a Category of Crystalline Groups Escaping Optical Investigation, 312 ; Non-existence of Hexagonal System, 360
- Walsh (David M. D.), the X-Ray Case Book, for Noting Apparatus, Methods and Results, 150
- War, Balloons in, 83
- War, Electricity in, Prof. John Perry, F.R.S., 541
- War, Wireless Telegraphy in the, 350
- Warburton (C.), a New Attid Spider (*Mantisatta trucidans*), 579
- Ward (H. L.), an Aerolite, 190
- Ward (Prof. H. Marshall, F.R.S.), Recent Work on *Onygena equina*, a Horn-destroying Fungus, 65 ; on Methods for Use in the Culture of Algae, 66 ; the Potency and Prepotency of Pollen, 470
- Ward (Robert De Courcy), Practical Exercises in Elementary Meteorology, 560
- Warington (Robert, F.R.S.), Lectures on Some of the Physical Properties of Soil, 561
- Warren (C. H.), New Minerals from Franklin (New Jersey, U.S.A.), 93
- Warren (Dr. W. H.), Chemistry of Perfumes, 619
- Wartegg (E. von Hesse), *Cina e Giappone*, 513
- Waste, Trade, the Purification of, R. A. Tatton, 281
- Water : the Theory of Water Finding by the Divining Rod : its History, Method, Utility and Practice, B. Tompkins, C. V. Boys, F.R.S., 1 ; Water-sterilisation by Ozone, Dr. Weyl, 65 ; Determination of Mass of Cubic Decimetre of Water, Dr. C. E. Guillaume, 572
- Water-gas Industry, the Carburetted, S. Cutler, Jun., 595
- Water Service Pipes, Electrical Thawing of, 156
- Waterloo and City Railway, the ; Method of Construction, H. H. Dalrymple-Hay, 85 ; Electrical Equipment, B. M. Jenkins, 85
- Watkins (A. O.), Formation of Dendrites, 311
- Watson (Thos. J.), the Bacteriology of the Soil, 515
- Watson (W.), Experiments with Lecher's Wehnelt Interrupter, 23 ; a Text-book of Physics, 557
- Wave-propagation, Conditions of Solitary, R. W. Gwyther, 383
- Wear in Tunnels of Steel Rails, Thomas Andrews, F.R.S., 595
- Weasel, Colour Phases of, Mr. Barrett-Hamilton, 451
- Weather : the Effect of, on Every-day Life, Edwin Grant Dexter, 56 ; Compensation in Weather, Alex. B. MacDowall, 295 ; Drunkenness and the Weather, Prof. Edwin G. Dexter, 365 ; R. C. T. Evans, 469
- Webb (Sydney), the Effects of Lightning upon Electric Lamps, 343
- Wedeck (Edgar), Zur Stereochemie des fünfwertigen Stickstoffes mit besonderer Berücksichtigung des asymmetrischen Stickstoffes in der aromatischen Reihe, 199
- Wees (W. H.), Geology of Judith Mountains of Montana, 600
- Weights and Measures, International Committee of, 350
- Weinberg (Dr. Boris), State of Practical Instruction in Physics, 515
- Weiss (Prof. F. E.), a Gutta-percha Plant, 7 ; on a Biserial *Halonia* belonging to the Genus *Lepidophloios*, 68
- Weiss (G.), Nature of Propagation of Nervous Impulse, 336
- Welde (Mr.), Can Ants Hear ? 157
- Well, Deepest-known Natural, E. A. Martel, 192
- Wellmann (Walter), Arctic Exploration, 17
- Wessel (Herr E.), Definitive Orbit of Comet 1897 III., 374
- West (C. A.), Dissociation Constant of Azoimide, 530
- West Indian Agricultural Conference, the, Prof. J. P. d'Albuquerque, 392
- Wettstein (Dr. R. von), Grundzuge der geographisch-morphologischen Methode der Pflanzensystematik, 563
- Weyl (Dr.), Water-sterilisation by Ozone, 65
- Whale Fishery for 1899, the, T. Southwell, 451
- Whale, Rorqual, at Woolwich, 134
- Whales, the Natural History of, F. E. Beddoe, F.R.S., 585
- Wharton (Rear-Admiral W. J. L., K.C.B., F.R.S.), Under-currents, 29
- Wheat Problem, the, Sir William Crookes, F.R.S., Sir R. Giffen, K.C.B., F.R.S., 169

- Wheat, the Price of, at Haddington, 1627-1897, R. C. Mossman, 519
- Wheeler (W. H.), the Colour of Flints, 106
- Whetham (W. C. D.), Ionisation of Dilute Solutions at Freezing Point, 504
- White (A. C.), Liquid Air as Anæsthetic, 258
- Whitmell (C. T.), Planets at their Greatest Brilliance, 540
- Who's Who, 1900, an Annual Biographical Dictionary, 270
- Wiechert (E.), Magnetic Deflection of Kathode Rays, 262
- Wiedemann's Annalen, now Annalen der Physik, 93, 190, 262, 432, 554, 626
- Wieland (G. R.), the Archelon Turtle from Fort Pierre Cretaceous Strata of South Dakota, 626
- Wiener (O.), a Fault in Lippmann's Photography, 93
- Wiglesworth (A. B.), the Birds of Celebes, 605
- Wild Beasts in the "Zoo," Bartlett's Life among, 267
- Williams (Mr.), on the Life-history and Cytology of *Halidrys siliquosa*, 65
- Williamson (R. B.), the Elements of Alternating Currents, 587
- Willis (B.), Coal-fields of Puget Sound, Washington, 600
- Willis (E. C.), the Meteors of Biela's Comet, 78
- Willis (J. C.), an English Station for Botanical Research in the Tropics (Ceylon), 32; on the Morphology and Life-history of the Indo-Ceylonese Podostemaceæ, 68
- Willis (A. P.), Molecular Susceptibility of Para-magnetic Salts of Iron Group, 432
- Willson (Robert W.), Specific Heat of Marble, 367
- Wilson (Sir C. W., K.C.B., F.R.S.), Elements of Precise Surveying and Geodesy, 77
- Wilson (H. C.), Variable Stars of the Algol Type, 521
- Wilson-Barker (Commander D.), Butterfly Shadows, 128
- "Wilt" Disease, the, of Cotton, &c., E. F. Smith, 186
- Wind during Eclipses of the Sun, John W. Evans, 200
- Wind, the Eclipse, O. L. Rotch, 589
- Wire Fences and Lightning, F. J. Brodie, 257
- Wireless Telegraphy: Recent Developments of, 78; a History of, J. J. Fahie, 243; La Télégraphie sans Fils, André Broca, 243; Wireless Telegraphy between Chamounix and Mont Blanc, Léon and Louis Lecarme, 280; Wireless Telegraphy in the War, 350; Wireless Telegraphy, G. Marconi, 377; Use of New Radio-conductors for, C. Tissot, 579
- Wires, Apparatus for Measuring Extension of, G. F. C. Searle, 459
- Witham (E.), Substituted Hydroxytriazoles, 335
- Witness of Creation, the, Nature Sketches from the Book of Job, M. Cordelia Leigh, 466
- Woad, on the Blue Colour in, Dr. Charles B. Plowright, 331, 563
- Wolff (W.), Explosions in Air, 93
- Wood (E. M. R.), the Lower Ludlow Formation and its Graptolite Fauna, 578
- Wood (J. K.), Solid Ammonium Cyanate, 119
- Wood (Prof. R. W.), on the Cause of Dark Lightning and the Clayden Effect, 104; Effects of Lightning upon Electric Lamps, 391; Photographs of Sound-waves, 433
- Wood (T. B.), Volumetric estimation of Potassium, 405
- Wood's Holl, Massachusetts, 1898, Biological Lectures from the Marine Biological Laboratory, 244
- Wooden Ball of Unknown Origin, a, Prof. H. Mohn, 31
- Woodwork: the New Education, Manual Training, Richard Wake, 53
- Work and Thought at Wood's Holl, U.S.A., 244
- Worms: the Planarians, W. G. Vanhame, 15; a Pyrenean Land Planarian, Dr. R. F. Scharff, 458
- Worsell (W. C.), Comparative Anatomy of Encephalartos, 142
- Wright (Prof. A. E.), Indian Anti-typhoid Inoculations, 327
- Wright (H.), Diffuse Reflection of Light, 432
- Wüllner (Adolph), Lehrbuch der Experimental Physik, 221
- Wyatt (G. H.), School Science and Knowledge-making Power, 274
- X-Ray Case Book, the, for Noting Apparatus, Methods and Results, David Walsh, 150
- Yangtze Valley and Beyond, the, Mrs. J. F. Bishop, 252
- Varaikanna Tribe of Cape York, the, Dr. A. C. Haddon, 44
- Year of Biology, a, 313
- Yeast Increase without Fermentation in presence of Limited Quantity of Air, A. Rosenstiehl, 336
- Yeast-cells, the Rate of Multiplication of, Dr. H. P. Hoyer, 113
- Yellowstone Park, Decline of Geyser Activity in, Prof. E. H. Barbour, 398
- Yermak, Account of the Trial Trip of the Great Russian Ice-breaker, Admiral Makarov, 17
- Yorke (J. Paley), Magnetism and Electricity, 102
- Young (G.), Substituted Hydroxytriazoles, 335
- Zappa (Dr. E.), Formalin as a Preventive of Silkworm Disease, 520
- Zeman (Dr. P.), Assymetrical Change in Spectral Lines of Iron Radiating in Magnetic Field, 408
- Zeeman, le Phénomène de, A. Cotton, 270
- Zeiss Photo-micrographic and Projection Apparatus, the, Dr. J. W. Measures, 506
- Zenneck (J.), Photography of Current Curves, 262
- Ziegler (W.), Analysis of Oscillating Discharges by means of Braun Tube, 627
- Zietz (A. H. C.), Memoirs of Royal Society of South Australia, 275
- Zittel (Prof. Karl Alfred v.), Geschichte der Geologie und Paläontologie bis Ende des 19. Jahrhunderts, 145; Text-book of Palaeontology, vol. i., 608
- Zomotherapy, Treatment of the Tuberculous by, J. Héricourt and Charles Richet, 459
- Zoo-geography: Studien zur Geographie, Dr. W. Kobelt, 19; Dr. Kobelt and the Mediterranean Fauna, Prof. Henry H. Giglioli, 227
- Zoology: Zoological Gardens, Additions to, 16, 40, 61, 86, 114, 136, 157, 186, 236, 260, 283, 305, 330, 355, 374, 402, 423, 450, 453, 479, 501, 521, 547, 573, 597, 621; Zoological Society, 95, 165, 214, 335, 406, 458, 482, 555, 579; the New York Zoological Park, 111, 303; Zoologia, Prof. Achille Griffini, 175; Formalin as a Preservative, 204; the New Zealand Zoological Region, H. Farquhar, 246; Is New Zealand a Zoological Region? Dr. Alfred R. Wallace, F.R.S., 273; Prof. Alfred Newton, F.R.S., 295; Charles Headley, 589; a New Peripatus from New Zealand, Prof. Arthur Dendy, 444; Zoology of Norwegian North Atlantic Expedition, Hans Kier and Kristine Bonnevie, 258; Bartlett's Life among Wild Beasts in the "Zoo," 267; Zoology and the Australian Museums, 275; a Descriptive Catalogue of the Indian Deep-sea Fishes in the Indian Museum, 291; an Account of the Deep-sea Brachyura, being Systematic Reports upon the Materials Collected by the Royal Indian Marine Survey Ship *Investigator*, A. Alcock, 291; Zoology of Mt. Roraima, British Guiana, F. V. McConnell and J. J. Quelch, 406; the Life of James Dwight Dana, Scientific Explorer, Mineralogist, Geologist, Zoologist, Professor in Yale University, Daniel C. Gilman, Prof. John W. Judd, C.B., F.R.S., 409; the Newly-born Kangaroo, D. le Souef, 423; Notes on the Occurrence of Amphioxus at Singapore, F. P. Bedford, 444; the Land Fauna of Christmas Island, C. W. Andrews, 458; the Greenland Musk Ox, Dr. E. Lönnberg, 458; Mammals of Mount Kenya, O. Thomas, 458; a Pyrenean Land Planarian, Dr. R. F. Scharff, 458; Obituary Notice of Prof. Emile Blanchard, 473; a Complete Mosasaur's Skeleton and a Skeleton of Diplodocus, H. F. Osborn, 534; a Manual of Zoology, Prof. T. J. Parker and Prof. W. A. Haswell, 559; an Elementary Course of Practical Zoology, Prof. T. J. Parker and Prof. W. N. Parker, 559; Marine Zoology in Australia, Prof. W. A. Herdman, F.R.S., 590; *Typhlopology*, the American Gilled and Blind Salamander, Dr. Stejneger, 620
- Zoutpansberg, Mineral Wealth of, Dr. S. S. Steuart, 281
- Zuber (Prof. R.), Geology of Oil-bearing Strata of Galicia, 452
- Zwilling (R.), Essais du Commerce et de l'Industrie, 176

44
mitated
Ioyer,
E. H.
n Ice-

sease,
f Iron

, Dr.

ns of
ralia,
und
Text-
court
; 39;
y H.

, 86,
402,
gical
New
chille
New
New
R.S.,
iley,
rthur
pedi-
Life
l the
f the
; an
ports
arine
Mt.
elch,
orer,
iver-
S.,
es on
ford,
ews,
158;
nean-
ce of
eton
nual
well,
T. J.
ry in
732;
ger,

452